Facing the Future : Korea's Family, Pension and Health Policy Challenges

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on Low Fertility and Ageing Society
Facing the Future : Policy Challenges in the Ageing Era

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FOREWORD

Korea will age much faster than other OECD countries! Back in 2000, only 7% of Korea's population were over 65, in 2050, senior citizens will constitute about 37% of Korea's population. Population ageing will unfold at such a high speed because Korea has been very successful reducing infant mortality rates and increasing life expectancy. Since 1996, when Korea joined the OECD, life expectancy at birth has increased by over 4 years the most rapid increase in the OECD. However, Korea has failed to maintain birth-rates at close to replacement rate, and since 1996, the fertility rate has dropped from being just below the OECD average at 1.6 babies per woman, to less than 1.2 children per woman, and Korea now has the lowest birth rate among OECD countries.

Population ageing on this scale will inevitably lead to a huge increase in spending on old-age income support and health care, whether in the public or private sectors. In addition, the demographic dynamics and the weakening of existing family networks will also require the development of a public family policy which supports the reconciliation of work and care commitments of workers. In all, the OECD believes that three objectives must be targeted for future policy development. First, the decline in the working-age population needs to be slowed second, working opportunities need to be extended and, third, affordable and sustainable pension and health care policies must be implemented.

In recognition of the policy challenges that population ageing involves the Presidential Committee on Ageing Society and Population Policy convened a Policy Forum on Low fertility and Ageing Society: "Facing the Future Policy Challenges in the Ageing Era". This international policy forum to exchange best practices and policy experiences in OECD countries was held September 13-14, 2006 in Seoul, and it was opened by Prime Minister Han Myung Suk of Korea, with opening addresses of Minister Rhyu Simin of the Ministry of Health and Welfare, former New Zealand Prime Minister Ms. Jenny Shipley and OECD Deputy Secretary-General Richard E. Hecklinger.

For the Occasion the OECD also prepared this summary study which looks at existing Korean family, health and pension policies from an international perspective and considers them in view of the emerging policy challenges. The report was prepared by Willem Adema (Editor and Family policy), Jeremy Hurst (Health and Long-term care policies), Ms. Monika Queisser (Pensions) assisted by Maxime Ladaique and Annette Panzera (Statisticians), under the overall supervision of the Head of the Social Policy Division, Mark Pearson.

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EXECUTIVE SUMMARY

Korea faces an extraordinary ageing challenge. Korea will age much faster than other OECD countries: in 2000, about 7% of Korea's population were over 65; in 2050, senior citizens will constitute about 37% of Korea's population. Population ageing will unfold at high speed, firstly because of the dramatic increase in life expectancy from just over 52 years in 1960 to over 77 years in 2004, a major cause of this was the spectacular decrease in infant mortality rates from 45 infants per 1000 live births in 1970 to 5.3 in 2002. The second cause of population ageing is the sharp decline in birth-rates from close to 3 children per women in 1975 to less than 1.2 in 2004. Reduced child mortality rates and increased life expectancy are indicators of the success of the Korean economy and society. However, the decline in fertility rates in Korea is evidence of strains in society which will damage prosperity in the future.

These rapidly unfolding dynamics of population ageing in Korea will challenge existing family, pension and health policies and demand adjustment of these policies to emerging needs. Population ageing will inevitably lead to a huge increase in spending on old-age income support and on health and long-term care services. Adapting to the pressures of an ageing society will also require that a greater proportion of future working age populations work. Female labour force participation is likely to increase so policies have to be put in place that support a better reconciliation of work and care commitments. Such policies will help fertility rates, slowing the decline in the working-age population and extend working opportunities. The third objective that underlies a successful population ageing strategy is vigorously to pursue reform which ensures affordable and sustainable pension, health and long-term care policies.

Family policy

In many ways, Korean family policy is in its infancy. The prevalence of the traditional Confucian Korean family support system limited the need for a public family policy in Korea. However, the role of traditional family networks is weakening, and public policy is finding it difficult to fill the emerging gap. Public spending on family benefits (including maternity and early care and education support) was just over 0.1 per cent of GDP in 2003, while public spending on education and health was close to 4 and 3 per cent of GDP, respectively. Nevertheless, the cost of education and health for parents remains considerable.

While Korea has developed a comprehensive education policy, for parents with very young children public support is much more limited. The declining birth-rates give an indication as to how difficult it is in Korea for both fathers and mothers to combine careers with care commitments to children. The changing nature of family relationships and the demographic trends towards both more elderly in need of care and more demand for female labour supply further add to the growing need to develop a more comprehensive public family policy that provides support for children, parents of working age, and senior citizens.

However, reform of public family benefits is not enough. For a 'work and family policy' to be effective it is essential that workplace practices give men and women, mothers and fathers, a fair chance in fulfilling their labour market aspirations. At present the Korean labour market fails to do this. Women frequently are expected to discontinue their career and regular employment contracts on childbirth, if not already on marriage, and all too often employment, career and care commitments prove to be difficult to combine. As a result, women drop out of the labour force, or decide to have no children. Both birth rates and female labour force participation rates are lower than they may otherwise be.

For birth-rates to rebound, or at least stabilise, and address future labour supply concerns it is necessary to change workplace practices so that paid work and family commitments are no longer mutually exclusive activities for men and women.

Pension policy

Public spending on retirement benefits is low at present, but rapid population ageing will soon change this. The sharpest effects will generally be felt over the next two-to-three decades, as the baby-boom generation reaches retirement age. Given the existing design of contribution rates and benefit entitlements, the National Pension System (NPS) is scheduled to run into deficit by 2036, with its funds being exhausted in 2047. Comprehensive reform of the contributory pension system would involve *inter alia* increasing coverage among the working population, higher contribution rates, and lower benefit entitlements. The challenge of finding the right balance of measures to ensure sustainability of the public pension system is further complicated by the high poverty risk among the elderly, especially among those who do not live in households with their children. The challenge for pension policy is thus to develop reforms that both improve the financial sustainability of the pension system and fight poverty among the elderly.

The necessity of systemic pension reform, including the introduction of a basic pension is crucially related to coverage issues. Since NPS pension benefit formulae already include a basic and an earnings-related component, the introduction of a universal basic pension would not be necessary if a sufficient proportion of the population were covered by the scheme. However, despite recent increases in coverage, the total number of contributors equals about 55% of the labour force, and coverage (in numbers and level of contributions) is particularly low among the self-employed. Compared to other OECD countries, the projected share of the uninsured population is rather large.

Limited coverage increases the risk that poverty among older persons will be high in the future (OECD, 2005a). Furthermore, the effectiveness of any pension system in preventing large-scale old-age poverty obviously depends on the level at which the old age allowances are set. Government proposals involve an increase of the existing means-tested old-age allowance payment to KRW 80,000 per month, whereas proposals put forward by the opposition party introduce a national basic pension for all senior citizens with a basic payment of KRW 310,000. Compared to the government proposals, the introduction of such a basic pension would reduce the old-age poverty risk

However, the introduction of the universal basic pension scheme would also impose a much higher fiscal cost. According to the National Pension Service's costing of various proposals, the combination of a universal basic and earnings-related pension would require expenditures of 2 5% of GDP in 2010 and 10 9% in 2070 whereas new government pension reform proposals would cost 1 2% of GDP in 2010 and 5 9% in 2070 The contributions and taxes required to fund the higher lever of pension spending would lead to a reduction in Korean employment, possibly by as much as two percentage points or more below that which would occur with the government proposals The choice therefore is between a higher level of pensioner poverty and lower taxation or a lower level of pensioner poverty, higher taxation and lower employment There is no 'right' answer in making this choice it is up to the Korean people to decide

Health and long-term care policy

Rapid population ageing, the weakening of family networks together with technological change and relative cost changes, are to raise dramatically the demands for public spending on health and long-term care in Korea OECD projections suggest increases in spending to 2050 that are larger than for any other OECD country Korea may need to fund *additional* public spending on health and long-term care services from about 6 to 8 6 percentage points of GDP by 2050

A number of key choices will have to be made in funding and providing extra health and long term care services as the population ages. What should be the role for public services, families and individuals in funding care, and what should be the roles of formal and informal carers, respectively, in delivering the long-term care services which will be needed?

Vigorous promotion of healthy ageing will be critical for managing the extra demand for health and long term care For example, more should be done to reduce the high rate of smoking among men in Korea, and/or to maintain a good diet and a high rate of physical activity in the (elderly) population

A new social protection scheme for long-term care would relieve the pressure for 'social hospitalisation', but care must be taken to design it in such a way, for example through income testing, that it remains affordable as the old-age dependency burden on the working population increases The elderly population themselves should be expected to contribute to the rising costs of health and long-term care as pensions grow and their savings accumulate. They should be expected to make contributions to the relevant insurance schemes and to continue to make co-payments, subject to assistance for the poor

It is important to maintain as far as possible the contribution of family and informal carers to the care of the elderly Care at home should be promoted and use should be made of monetary payments to informal carers, when appropriate and of respite care for the dependent elderly These and other cost containment measures will also be critical for the long-term financial sustainability of both health and long-term care insurance

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Setting the scene: the rapidly changing socio-economic policy context

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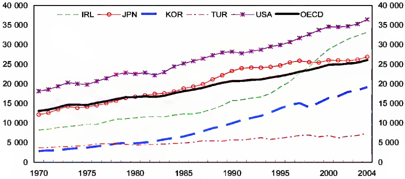
1. Setting the scene: the rapidly changing socio-economic policy context

Rapid industrialisation since the 1960s has given Korea an exceptional growth record among OECD countries (Chart 1.1); GDP per capita as adjusted for 2000 purchasing power parities, increased from about USD 3,000 in 1970 to USD 19,000 in 2004 equalling an average growth rate of 5.8% per annum (OECD, 2006a). From 1970 economic growth remained strong until 1997, when the economic crisis exposed weaknesses in Korean economic structures. Subsequent reform of corporate and financial sectors as well as labour markets led to a more market-oriented economy, which rebounded with an annual growth rate of about 6% since 1998 (OECD, 2005a). Overall, Koreas growth performance has been very strong in comparison to most other OECD countries, and in 2004 GDP per capita was close to 75% of the OECD average up from a mere 20% in 1970.

Chart 1.1: Koreas economy growth has been stronger than in most other OECD countries

GDP per head, at the price levels and PPPs of 2000 (US dollars), 1970 to 2004



Source: OECD (2006), National Accounts of OECD Countries: Main Aggregates, Volume I, 1993-2004 (2nd version).

Korea's employment performance has also been strong. Male employment rates are close to the OECD average, in 2005 at 75%, although they fell with the unfolding of the 1997 economic crisis (Chart 1.2, Panel A). However, female employment rates are low in international comparison, in 2005, 52.5% of the female working age population was in employment, compared to 55.8% across the OECD, and 65.6% in the US. The female employment rate was 22.5 percentage points lower than for men, although the gap has narrowed somewhat since 1990, when the gender employment gap was 24.9. Gender differences in labour market outcomes remain substantial in Korea.

With economic growth the magnitude of general government spending in Korea increased from about 18% of GDP in the mid-1970s to about 28.1% at present (OECD, 2006a)[1], and this trend is mirrored closely by patterns in tax receipts, the Tax-to-GDP ratio increased from 15.1% in 1975 to 25.3% in 2003 (OECD, 2005b). On average across the OECD, the general government spending to GDP and Tax-to-GDP ratios are considerably higher at 44.4% and 36.3%, respectively.

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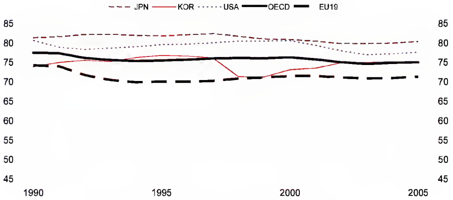
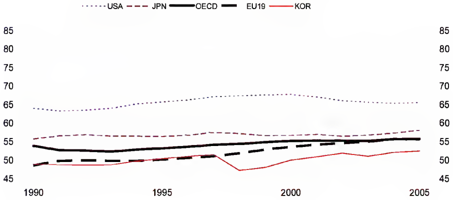
[1] General Government expenditure as recorded in the OECD Economic Outlook jumped up from 24.8% in 2002 to 30.9% in 2003 due to a one-off recording of capital transfers to the Korea Deposit Insurance Corporation and the Korea Asset Management Corporation. These transfers are related to the role of these institutions in re-capitalising banks and the purchase of non-performing loans in the aftermath of the 1997 economic crisis.

Chart 1.2: A strong employment performance, but female employment remains relatively low

Panel A. Male employment rates, working age population 15-64



Panel B: Female employment rates, working age population 15-64



OECD (2006), Employment Outlook.

1.1. Poverty and income inequality

The relatively low tax burden has a beneficial impact on the functioning of the labour market. However, the limited magnitude of the tax/benefit system also means that the scope for public redistribution of resources is small, so that the high degree of earnings (market income) dispersion translates into a relatively high degree of income dispersion in Korea. Evidence from the recently instituted National Survey on Income and Expenditure suggests that with a Gini-coefficient[2] of 34.4 in 2004, income dispersion in Korea is comparable with OECD countries as Greece, Portugal, the US and Poland. Only Turkey and Mexico have significantly greater dispersion in the income distribution (Forster and Mira d'Ercole, 2005, and Jones, 2005).

Strong economic growth sharply reduced the incidence of poverty in Korea. Available historical information on urban poverty (which will underestimate the incidence of poverty on a nation-wide basis) based on the official poverty line[3] suggests that the number of households in poverty declined from 21.5% in 1975 to about 7.4% in 1996. With the economic crisis the incidence of urban poverty peaked in 1998 at 14.3% to fall again to just over 9% in 2001, but edged up again to about 11% in 2003 (Park and Kim, 1998, IBRD/Worldbank, 2004, Yeo, *et al*, 2005). On the basis of a 50% median income threshold, the poverty rate in Korea would be around 15% in 2003: about 4 to 5 percentage points above the OECD average (Forster and Mira d'Ercole, 2005).

Table 1.1 shows that among the Korean population, the poverty risk is substantial and increasing for (the growing number of) single person households and families where the household's spouse is absent but with either children or elderly relatives. However, elderly households have by far the highest poverty risk: nearly 4 out of 10 elderly households live in poverty. The projected population-ageing dynamics make an expanded income-support programme for the elderly population increasingly urgent (see below).

Table 1.1 Senior citizens in Korea face a high poverty risk

Poverty rate by household type(1) and trends in household composition

	1991	1996	2000
Relative poverty rate			
All households	5.0	4.6	8.1
Single person households	7.1	9.4	16.4
Couple households	3.8	2.4	4.9
Male-headed households (2)	7.1	6.0	11.6
Female-headed households (2)	13.1	11.0	14.6
Elderly households	27.0	40.3	38.8
Household composition			
Total households	100	100	100
Single person	1.8	2.9	3.1
Couples	88.3	84.9	82.8
Male-headed households (2)	2.7	3.2	3.4
Female-headed households (2)	4.3	5.4	5.0
Elderly households	2.9	3.6	6.7

(1) Threshold for relative poverty rate is 40 percent of median income.
(2) Male or female-headed households which have 2 family members or more but without spouse
Source: Ku (2004), "Poverty in Korea, Why It Remains Higher?", Seoul (in Korean)

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[2] The Gini coefficient is the most common measure used in income distribution analysis, and usually varies between zero and hundred. Where the Gini coefficient is zero there is complete income equality - all individuals receive the same share of income, and where it is 100 there is complete inequality - one person receives all the income.

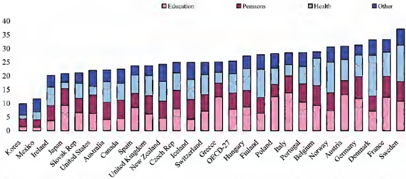
[3] This poverty line is based on the so-called Minimum Cost of Living (MCL), which varies with household size, and is also used as a benchmark for the calculation of social assistance payment rates. In 2006, the MCL for a single-person household was 418,309 Won (440 USD) per month.

1.2. Public spending on social support

Chart 1.3 shows that many European countries have used growth in prosperity to finance the development of a comprehensive public welfare state: on average in the 19 EU-countries that are members of the OECD, public social spending (not including benefits through specific schemes to former civil servants) amounted to 20.7% of GDP in 2003. Although comparisons of gross (before tax) public social spending data have to be undertaken with care[4], by international standards public spending on social support is low in Korea, at 5.7% of GDP in 2003 (OECD, 2007a). At 4.1% of GDP in 2003, public spending on education in Korea is close to the OECD average, and this relatively high level of spending on education shows that Korean policy embodies a focus on 'active spending', which fosters (individual) human (capital) development and labour market participation (see below), and thus contributes to economic growth (Adema and Whiteford, 2005, and Arjona *et al*, 2001). The fact that the pension system in Korea has not yet matured and the relatively high share of individual co-payments and out-of-pocket spending in the financing of the Korean health care system contribute to low overall public social spending. However, one of the main differences between the Korean system and systems in many other OECD countries is the limited development of public support for the working age population, be it in terms of 'passive spending' on income transfers to families, the disabled, the unemployed, and the very poor, but also in terms of, for example, 'active public social spending' such as public spending on childcare.

Chart 1.3. Public social expenditure is well below the OECD average

Public spending on social support and education as a percentage of GDP, 2003



Note: Pensions refer to spending as in the Old age and Survivors categories in the OECD social Expenditure Database, 'Other' includes spending on incapacity-related benefits, family benefits, unemployment compensation, active labour market programmes, housing and other social policy support as, for example, financial support to low-income households.

Education expenditures include public spending on primary, secondary, and tertiary (university) education.

Source: OECD Education Database, and the OECD Social Expenditure Database.

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[4] A comparison of welfare states by looking at the proportion of GDP that is devoted to gross social benefits may be misleading because, such a comparison does not capture: 1) the extent to which benefit income -- and consumption out of benefit income -- is being taxed, and, 2) the extent to which governments provide tax advantages with a social purpose to employers and individuals. Capturing the impact of the tax system and private spending leads to greater similarity in spending-to-GDP ratios across countries as for example, Denmark, the Netherlands, the United Kingdom and the US (Adema and Ladaique, 2005). However, similar social spending-to-GDP ratios across countries do not mean that redistributive powers of tax/benefits systems are necessarily the same (Whiteford and Adema, 2007).

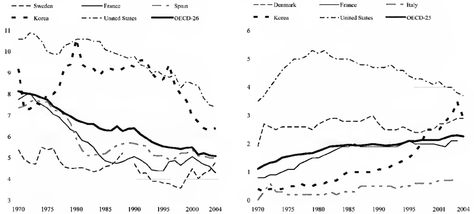
Issues in family, health and pension policy development may differ, but ensuring adequate financing of support arrangements is the common challenge that cuts across all different areas of Korean social policy. In part, the financial difficulties are related to considerable under-reporting of income (OECD, 2003a and 2005a), and, thus, reduced public receipts in terms of income taxation and pension, health and other social security contributions. In addition, the financial situation of public pension schemes for (former) public sector workers and teachers is already precarious and will impose an increasing burden on public finances. Improving the functioning of the tax system, increasing the tax base[5] and increased coverage of social insurance contributions is key to social policy development in Korea. In fact, it will be increasingly important to address these financing issues, as the anticipated decline in the working-age population will undermine Korea's ability to fund additional public social spending on pensions, health and long-term care provisions, but also on, for example, increased support for working families.

1.3. The role of family support is weakening

The (extended) family as a source of (income) support is a key element of the traditional Confucian Korean social welfare regime. Indeed, families continue to be an important source of support, especially in terms of need, as for example, during the crisis of the late 1990s (Ku, 2005 and OECD, 2000).

However, the supportive role of the traditional extended family is declining. One reason for this is that younger generations (in general those born after 1970) are less willing or able to provide support for parents within the household, as tradition would have it. Between 1984 and 1998, the proportion of elderly people not living with their children

Chart 1.4: In Korea, patterns of marriage and divorce have changed after the crisis of 1997



Panel A: Marriages per 100,000 population, 1970-2004

Panel B: Divorces per 100,000 population, 1970-2004

Source: OECD (2007), Society at a Glance: OECD Social Indicators.

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[5] For example by reducing generous tax allowances and tax credits which ensure that only half of the individuals pay income tax and limiting exemptions concerning value added tax and corporate taxation (OECD, 2003a).

more than doubled to 47 per cent (OECD, 2000). This feature is related to rapid urbanisation in Korea: the proportion of the urban population in the overall population has increased from 17% in 1950 to about 90% in 2005 (KNSO, 2005).

The changing patterns of family formation and dissolution contribute to the changing nature of family support mechanisms. People are older when they marry for the first time: the mean age at first marriage for women has increased from 24.9 in 1985 to 27.5 years of age in 2005 (an increase which closely reflects the trend of the OECD-average). Compared to other OECD countries the marriage rate in Korea remains high, but declined sharply over the 1996-2003 period (Chart 1.4, Panel A). Over the same period the divorce rate more than doubled, and is well above the OECD average (Chart 1.4, Panel B). In 2004, the divorce rate fell and the marriage rate edged up, but it is too early to say whether this reflects a trend-break towards greater marriage stability.

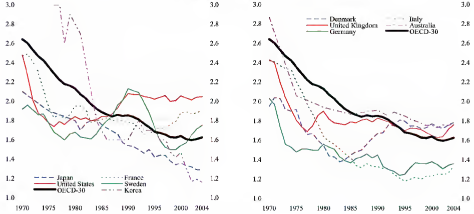
Korea is among the very few OECD countries where having children remains strongly associated with marital status: in 2004, only 1.3 per cent of births were out of wedlock, while on average across OECD countries more than 30% of children are born to parents who are not married. Therefore, with the increase in the age of first marriage, the mean age of mothers at first childbirth has also gone up in Korea, and at 28.9 years is now among the highest in the OECD area: only in Germany, Spain, Switzerland and the UK (where it is highest at 29.5 years of age) are mothers older when they have their first child (OECD, 2007b).

1.4. Extraordinarily rapid ageing of the Korean population

The increase in the maternal age in first childbirth has contributed to the sharp decline in the fertility rate in Korea. The birth rate was 6 children per women in 1960, about half that in 1975, and is now at about 1.2 children

Chart 1.5: Sharply declining birth-rates in Korea

Total fertility rate, children per women



Source: OECD (2007), Society at a Glance: OECD Social Indicators.

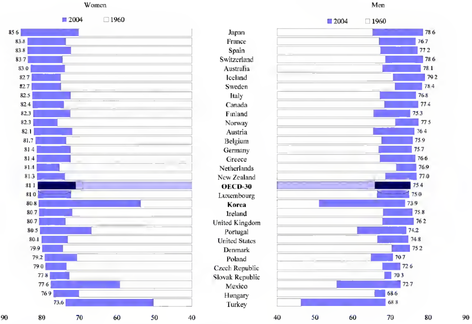
per women, among the lowest levels recorded in OECD countries (Chart 1.5). Socio-economic changes, including industrialisation, urbanisation, changes in family values, gender roles, attitudes towards paid employment and pursuing careers have all contributed to changes in family formation and the decline in the birth-rate.

In addition to changes in fertility behaviour, there have been sharp reductions in infant mortality rates, from 45 infants per 1000 live births in 1970 to 5.3 in 2002, the infant mortality rate is now below the OECD average of 5.7 infants per 1000 live births (OECD, 2005c). There has also been a dramatic increase in life expectancy in Korea (Chart 1.6). Compared to other OECD countries, except perhaps Turkey and to a lesser extent Mexico, the gains in life expectancy in Korea have been spectacular over the last 45 years. for women from 53.7 years on average in 1960 to 80.8 in 2003, and from 51.1 to 73.9 for men over the same period.

Compared to most other OECD countries, the proportion of the foreigners residing in Korea is low. only 0.9% of the population is foreign born (OECD, 2006b). In the absence of important migration flows, the sharply reduced birth rates and the huge gains in life expectancy at birth will lead to an extraordinarily rapid ageing of the Korean

Chart 1.6. Life expectancy has increased remarkably in Korea since 1960

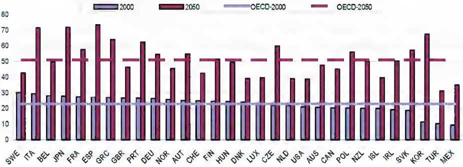
Life expectancy at birth, in years, men and women, in 1960 and 2004[a)]



a) 2003 for Belgium, Canada, Ireland, Italy, Korea, Luxembourg, Portugal, United Kingdom and United States.
Source OECD (2007), Society at a Glance: OECD Social indicators.

Chart 1.7: Korea will age more rapidly than any other OECD country

Population aged 65 and over, relative to the population aged 20-64, 2000 and 2050



Source. OECD (2007), Society at a Glance: OECD Social indicators.

population. By 2050, the number of people not yet 30 years of age relative to the working age population will have fallen to 29% from 46% in 2000. This will have a profound effect on, for example, the demand for education services, which is likely to lead to dramatic changes in the number and structure of schools and universities. At the same time, the number of senior citizens relative to the working age population will increase from just below 10% in 2000 to almost 70% in 2050 (Chart 1.7); and only Italy, Japan and Spain will have similarly 'old' populations in 2050. These dynamics will impose a considerable burden on future working age populations and challenge the innovative capacity of Korean policy-makers.

Family policy development

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2. Family policy development

2.1. Socio-economic factors contributing to low fertility rates

The traditional Confucian based family-support-system has long been an important cornerstone of Korean society. In this concept the 'extended family' (often living together in one household) plays a key role in providing support, either through direct provision of care, or otherwise through the provision of transfers. However, the nature of Korean society has started to change. The prevalence of extended households is diminishing: the incidence of three-generation households fell from 22.1% in 1970 to 9.9% in 2000 (KNSO, 2005). There number of households with children is rapidly declining in rural areas while there growing number of married couples without children (Table 2.1), and the number of households. These factors suggest that there is an increasing proportion of elder couples who are living on their own (especially in rural areas), while in urban areas there are also likely to be more younger couples without children.

The trend to smaller households coincides with a decline in birth rates more generally (Chart 4). The decline in birth rates mainly involves increased childlessness among women and a decline in larger families. Table 2.2 shows that the number of first-born children in 2004 is about two-thirds the number of first-born children in 1981 which point to a decline in the number of women who have children. Once Korean women have become mothers it is very likely that they will have a second child, but not more. The number of larger families has dwindled, the proportion of babies who are borne into families with two children already present is only 20% of what it was 25 years ago.

Table 2.1: There are more and more married couples without children in Korea

Household composition by family type, 1970 - 2000

Region, year	Nuclear family			Extended family		Other types
	Married couple without children	Married couple with child(ren)	Father or mother with child(ren)	Married couple with parent(s)	Married couple with parent(s) and child(ren)	
Whole country						
1970	5.4	55.5	10.6	1.4	17.4	9.7
1980	6.4	56.5	10	0.6	10.4	16.1
1990	9.3	58.0	8.7	0.9	9.4	13.8
2000	14.8	57.8	9.4	1.1	6.8	10.1
Urban	6.6	58.8	11.5	1.2	11.7	10.2
1970	6.0	58.6	10.1	0.4	7.4	17.5
1980	7.4	61.3	8.9	0.6	7.9	14.0
1990	11.7	61.5	9.9	0.7	6.2	9.9
2000						
Rural						
1970	4.6	53.0	10.0	1.5	21.6	9.3
1980	7.0	53.6	9.7	1.0	14.6	14.1
1990	14.8	48.1	8.4	2.0	13.5	13.2
2000	26.5	43.6	7.4	2.8	9.1	10.7

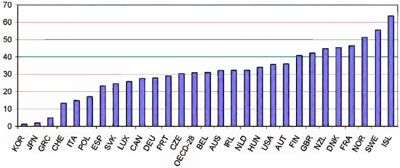
Source: Korea National Statistical Office, Social Indicators

Table 2.2: The number of larger families has fallen sharply in Korea
Thousands of new-born children in a given year

	1981	1990	2000	2004
Total new-born children	868.9	651.9	634.9	472.2
First child	355.9	349.3	299.6	241.2
Second child	291.2	253.8	269	185.6
Third child and over	221.8	48.8	66.3	45.4

Source. Korea National Statistical Office

Chart 2.1: Korea has only a very small number of births outside marriage
Share of births outside marriage, 2004



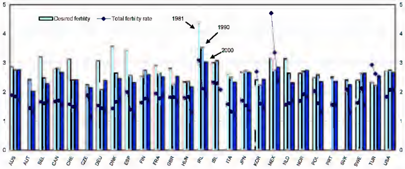
Source. OECD (2007), Society at a Glance: OECD Social Indicators.

Koreans are getting married at a later age. The median age at first marriage for women increased from 24.4 years in 1990 to 27.5 in 2004 (OECD, 2007b). In theory, later marriage could merely lead to a postponement of fertility (and a temporary dip in birth rates), but, in Korea it seems to have led to a more permanent decline in family-size (Table 2.2). The change in the fertility rate is also related to an increase in the acceptance and the number of people who are not marrying (KNSO, 2005). At every age, unmarried people have much lower fertility than married people, but this is particularly true for Korea, where births out-of-wedlock hardly ever occur (Chart 2.1). In contrast to many European countries, and Nordic countries in particular, cohabitation generally does not extend to parents with children. It is difficult to quantify the relative importance of these different factors on fertility trends, but much more than in other OECD countries, changes in fertility trends in Korea are related to changes in marriage behaviour.

The change in fertility behaviour is also related to changing attitudes within Korean society. The male-breadwinner model involves a clear allocation of responsibilities, with men providing family income, and women providing care at home. Female employment was incompatible with caring for children, and as long as most women accepted this gender division of responsibilities, fertility rates remained stable and high. However, changing female aspirations, as, for example, reflected in increased educational attainment and increased labour force participation, diminished the relevance of the male-breadwinner model and contributed to the desired decline in fertility rates. Indeed, unlike most OECD countries, birth-rates in Korea were above desired fertility levels in 1981. By 2000 that had changed

Chart 2.2. Korean parents have 1 child less than they otherwise desire

Desired and observed fertility rates, 1981, 1990 and 2000



Source: D'Addio and Mira d'Ercole (2005), Trends and Determinants of Fertility Rates in OECD Countries. The Role of Policies.

and Korean parents had on average one child less than they would otherwise like to (Chart 2.2).

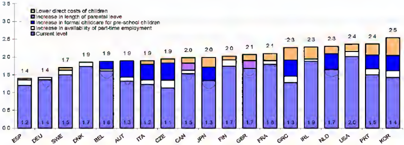
Education and housing costs, and the perception thereof, are often referred to as important factors which affect fertility behaviour. Good housing is hard to get in Korea - about a quarter of households live in accommodation that does not meet the minimum standard and housing costs are substantial and increasing rapidly in recent years (OECD, 2005a). The high cost of housing poses the greatest difficulty to first time buyers, and although this group is relatively small, many of those are either young people who wish to start a family or young families with children. Housing constraints thus co-determine the timing of leaving the parental home and, in turn, marriage and first birth.

The high costs of childrearing in general, and high education costs in particular are perceived as a major problem by many parents in Korea. Spending on primary and secondary schools is largely public in Korea, public spending amounted to 3.5% of GDP in 2003 while private spending amounted to 0.9% (OECD, 2005d). However, in order for their children to gain entrance to the most prestigious universities, many parents organise for their children, if they can in any way afford it, to attend very expensive education, such as tutoring or the after-school learning institutes, and this can cost up to about USD 25,000 annually per annum. The cost of university education is largely borne by parents: in 2003, spending on university education amounted to 2.6% of GDP of which approximately 80% concerned private spending, compared to average spending on tertiary education across the OECD of about 1.1% of GDP, of which close to 40% was privately financed.

2.2. Direct public policy intervention

Increasing the incidence of (non-regular) part-time employment opportunities (see below) and changing the duration and generosity of income support during parental leave, are likely to have little effect on fertility behaviour in Korea. On the other hand, greater investment in childcare and pre-school services, and introducing public transfers to families which relieve the cost of raising children are among the factors that potentially could have a large impact on the

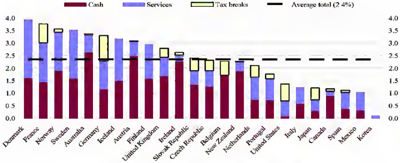
Chart 2.3: Reducing the cost of childrearing to parents and increasing public childcare support could contribute to higher birth-rates in Korea



Source: D'Addio and Mira d'Ercole (2005), Trends and Determinants of Fertility Rates in OECD Countries: the Role of Policies

Chart 2.4: Spending on family benefits is low in Korea

Family spending in cash, services and tax measures, in percentage of GDP, in 2003



Note: Public support accounted here only concerns public support that is exclusively for families (e.g. child payments and allowances, parental leave benefits and childcare support). Spending recorded in other social policy areas as health and housing support also assists families, but not exclusively, and is not included here.
Source: OECD (2007), Social Expenditure database.

fertility rate in Korea, much more so than in most other OECD countries (Chart 2.3).

The estimation technique underlying the projected impact on fertility behaviour as in Chart 2.3 does assume, however, that Korea were to develop spending on its family benefits up to the level of the third-ranked country in the OECD area. In reality, this is unlikely to happen in the near or distant future, as spending on family benefits is relatively low in international comparison. In 2003, it amounted to about 0.12% of GDP, by contrast, this was close to 4% of GDP in Denmark. The system of public family support is under construction in Korea, and includes support for family welfare services, community centres, orphans, childcare services and pre-school education. Since 2001, Korea has a system of income support during maternity and parental leave. In 2008, an in-work benefit will be introduced that will support low-income families, and there is debate on extending childcare support and/or introducing an (income-tested) child allowance (see below and OECD, 2007c, forthcoming).

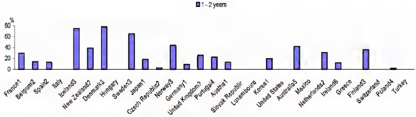
Childcare and pre-school education is just one of the areas where limited public support has contributed to access issues. Compared to other countries participation in formal care arrangements by under 3s is not high in Korea. Participation in preschool services by 3, 4 and 5 years old is higher at almost 70% (Chart 2.5). In the case of childcare and pre-school participation parental fees do not appear to be excessive on average (Immervoll and Barber, 2005). Rather it seems there is a lack of access to good quality services for very young children, and while traditional attitudes on maternal caring roles may curtail demand for formal care services the latter are nevertheless to fall well short of demand (see, for example, Kim and Kim, 2004). The constraints to childcare and pre-school capacity are likely to contribute to mothers often providing personal care for very young children on a full-time basis.

Among OECD countries, policy makers in Japan (OECD, 2003b) and Korea are arguably most explicit in their aims to foster an environment conducive to parents having as many children as they want. However, compared to the prominent role of fertility concerns in the Korean social policy debate, budgetary allocations to support such initiatives have been limited.

Moreover, rather than introducing a single measure, it is increasingly realised in Korea that a comprehensive policy package is needed to reverse existing fertility trends. Steps undertaken in this process include the introduction of the "The Low Fertility and Ageing Society Policy Act" in September 2005 and the signing of a 'convention' or 'master plan' towards higher fertility rates by different social partners in July 2006 (Box 2.1).

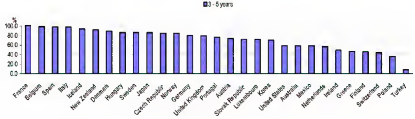
Chart 2.5. Particpation in formal childcare services is not high in Korea

Average enrolment rate of children aged one and two in early care and education services, different years



Years of reference. 1.2001, 2.2004, 3.2003; 4.2002, 5.2005 and 6.2000

Average enrolment rate of children aged three to five years of age in pre-school educational programmes (ISCED 0) in 2004



Countries are ranked in descending order of 3 to 5 year old enrolment rates.
Source: OECD Family database.

Box 2 1: The 'Master Plan' for increasing fertility in Korea

The 'master plan' for increasing fertility rates reflects increased awareness of fertility concerns and involves a convention signed by social partners including the government, employers associations, trade unions, and civic groups (Government of Korea, 2006). The "master plan" encompasses a wide array of different measures that increase family resources and facilitate the reconciliation of work and family life:

- *Increase the coverage of income-tested childcare support to serve about 80% of all children aged 0-5 in 2009.* At present only families on social assistance or with earnings below 70% (there are exceptions) of average monthly urban worker household earnings (about KRW 3,350,000 or about USD 3,500 for a 4-person household) are eligible for fee support By 2009 this will cover all families with children whose earnings are below 130% of average urban worker household earnings
- To *help parents combine their family and work commitments when children get older*, the planned provision of out-of-school-hours care in all primary schools by 2010, in 2006, about 20% of primary schools provided such a service
- To *increase investment in public childcare facilities* to cover 30% of children under that age in centre-based care (in 2005 this proportion was 11%), the government also subsidises private care centres which provide services to 0-2 olds To enhance the quality of services of such services, an accreditation system will be introduced with quality assessment being carried out every three years, from 2008 onwards. Flexible child care services will be expanded so that more night-care services and hour-based care services will be available in the near future
- *The tax system will be made more favourable for larger families.* Also, a child-birth credit will be introduced to the National Pension Scheme (NPS), worth one year of pension contributions in case of a second child and worth 18 months contribution from the third child onwards, up to a maximum of 50 months The credit is given to one adult in couple families, but equally divided among spouses if they so wish The introduction for a child allowance is also being considered, but subject to a review of possible financing mechanisms
- *Provision of maternity leave is being expanded.* From 2006, the unemployment insurance scheme pays maternity leave benefits up to a maximum of KRW 4,050,000 (about USD 4,240) for 90 days, (also to female workers in small and medium-sized enterprises and female workers who have a miscarriage). From 2008, 3 days' paternity leave will be introduced Parental leave benefits will become more generous for children born from 2008 onwards, parents will be entitled to 1 years leave to care for children up to 3 years old (at present all leave has to be taken prior to the first birthday), and payment will increase from KRW 400,000 per month (about USD 420) to KRW 500,000 in 2007. It is also intended to introduce a flexible working hours' system for working mothers with care responsibilities for young children in 2008 The government will also introduce a bonus-payment for employers who hire mothers with young children who wish to return to paid employment

Other measures in the "master plan" include an accreditation system for family-friendly enterprises, increase awareness of the value of family-friendly policies and gender equitable practices, improve child-safety measures, establish systematic monitoring (check-ups) of pregnant women, mothers, babies and infants within the public health system In 2007, the eligibility criteria in the existing system of income-tested financial support towards IVF-treatment for couples who are not able to conceive will be loosened so as to increase coverage

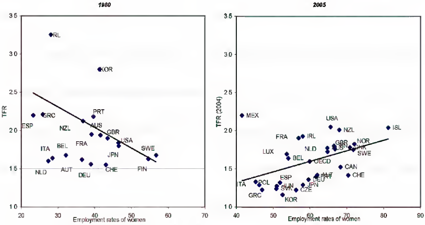
2.3. Fertility and employment

With the changing attitudes in Korean society, and in societies across the OECD more generally, female employment rates have increased across the OECD area (Chart 12). In Korea, female employment rates have increased from around 40% in 1970, to 52.5% in 2005, but the increase in female employment rate has been limited since the mid-1990s. Female employment rates in Korea are below the OECD average of 57.1% (OECD, 2006f), and are well below the levels, around 70%, reported in countries (e.g. France, Sweden, and the US) where birth-rates are close to 2 children per woman.

Across OECD-countries the relationship between female employment and fertility appears to have changed over the last 35 years or so (OECD, 2005f). In the 1970s, there was a clear negative correlation between female employment and fertility rates, but, in 2005, OECD countries with higher rates of female employment also had relatively high fertility rates (Chart 2.6). Clearly, the degree of incompatibility between paid work and providing care has diminished, but there aresubstantial cross-country differences: combining childrearing and being in employment is most incompatible in the Mediterranean countries and Japan and Korea and least incompatible in Nordic countries, New Zealand and the US (for example, Engelhardt, *et al*, 2001 and Kögel, 2001).

Chart 2.6: Countries with high female employment rates now also have relatively high fertility rates

Total fertility rate (TFR) and female employment rate, 1980 and 2005



Source: OECD (2007), Society at a Glance: OECD Social Indicators.

2.4. Facilitating the reconciliation of work and family life

Female labour market aspirations and behaviour have clearly changed, and this change in behaviour has led to policy reform. Policy tries to reduce barriers to employment and increasing "choice for parents" in making their work and care decisions is the overriding policy objective across the OECD, even though the underlying emphasis on wider policy issues varies. For example, while fertility concerns are a key concern in the Korean social policy discussion, this issue hardly features in the British or Dutch debate. Similarly, while gender equity objectives feature prominently in Swedish policy design, this is far less so in many other OECD countries, including Korea. The underlying differences in emphases in policy objectives are important for the understanding of differences in policy design (as well as outcomes) across the OECD area (Box 2.2).

Box 2.2: The OECD Babies and Bosses reviews of work and family reconciliation

The *OECD Babies and Bosses* series considered how policies can help balance work and care responsibilities, and covered 13 countries in 4 volumes: Australia, Austria, Canada, Denmark, Finland, Japan, Ireland, the Netherlands, New Zealand, Portugal, Sweden, Switzerland and the UK (OECD, 2002, 2003b 2004a and, 2005c). A synthesis report including indicators on countries not reviewed is being prepared for release in 2007; the reviews have also led to the establishment of an on-line OECD database on family outcomes and family policies (www.oecd.org/els/social/familyfriendly/database).

Policy objectives

Across OECD countries the over-riding policy objective is to *support parents in choosing their work and care options*. In practice, countries place rather different emphases on wider policy objectives.

- Korea is one of the few OECD countries (Japan is another example) where family policy is largely driven by considerations of fertility issues. Unsurprisingly, *fertility* rates are the most important policy concern, given that each woman averages just 1.3 children at present, an average that is still declining. In other countries concerns about fertility rates are present, but do not necessarily affect policy development as, for example, in Ireland, the Netherlands and the United Kingdom.

- In all countries, *increasing female employment* is emphasised as being crucial for maintaining economic growth and/or affordable pension systems. These objectives are particularly important in the Australian, British, Irish, Netherlands, New Zealand, Portuguese and Swiss policy debates.

- In Australia and the UK supporting maternal employment and thus tackling child poverty and fostering *child development* is at the centre of policy. In Nordic countries, New Zealand and, to a lesser extent, other OECD countries childcare policy increasingly stresses the pedagogic role of pre-school care.

- Women overwhelmingly do more domestic work than men, and take leave more than men. However, apart from in the Nordic countries and Portugal, *gender equity* objectives appear to be incidental rather than serve as primary policy objectives.

Policy instruments

The *Babies and Bosses* reviews favour systems which provide a *continuum of support* – support for full-time personal care at home when the child is very young, leading on to a childcare place, pre-school, school and out-of-school-hours care activities, as in Denmark, for example. Such support systems are expensive, but public outlays could be reduced through targeting.

From a narrow labour supply perspective the optimal duration of *parental leave* seems to be around 4-6 months; considerations on child development contribute to parental leave in many OECD countries extending to around the first birthday. The reviews have been critical of policy approaches which support full-time parental care until a child is 3 years of age: the prolonged absence from the labour market (especially if the mother has more children) permanently damages career and earnings progression, and thus curtails family income increasing the risk of children growing up in poverty.

In all OECD countries, women rather than men make use of parental leave arrangements. In Korea not many parents use child-care leave only 3,763 in 2005, and the overwhelming majority was female; only 78 fathers took child-care leave in 2005. The introduction of *a paid father quota in leave systems* (periods of leave for the exclusive use of fathers) has had some success in increasing paternal care (as in Portugal and Sweden), but has not changed paternal care behaviour fundamentally: fathers generally take more care days around holidays. Paternal attitudes are not the only issue, as mothers frequently seem reluctant to give up leave to their husband's benefit.

Funding of childcare investment should follow parental choices, and use can be made of a mixture of financing tools. Direct subsidies towards: capital investment, provision in deprived and/or scarcely populated areas, and, services for children with special needs. In addition, earmarked support could be awarded to parents in order to improve: efficiency through competition, and, choice in terms of providers and types of care, including out-of-school-hours care. To foster quality, financial support to parents should be linked to licensed providers only. Through income-testing and (partial) linkage of entitlements to working hours, employment objectives can be pursued while targeting public resources at those in need.

Out-of-school-hours care for older children is a key policy weakness in all countries under review, except for Denmark, Sweden and the Canadian province of Québec.

Incentives to work matter. Differences in the tax and benefit system are found to have an effect on the decision of parents to participate, and whether they work part-time or full-time. Low effective tax rates on paid work are desirable.

Family-friendly workplaces are essential for the reconciliation of work and family life. Without them, good public policies, as in Japan, have little effect. Many countries are reluctant to intervene in the workplace, and limit their role to awareness campaigns, or awarding prizes to best-practice employers. The result is that only a limited group of parents benefit, usually in the public sector and/or highly skilled workers. Innovative approaches, as for example, the Austrian "Work and Family Audits" which provide work places with practical and tailored advice, remain relatively small-scale.

Information on the prevalence of flexible working schedules, term-time working, and teleworking is limited but in any comparison *part-time employment* is the main form of working-time flexibility that parents use. The focus on time-related support is arguably most pervasive in Dutch policy where employees regardless of family status are entitled to change their working hours given due notice, and where 60% of the employed women work part-time. In the UK, parents with young children have the right to ask for flexible workplace practices (requests are often granted), while in the Swedish comprehensive support system, parents are entitled to reduce working hours until their youngest child enters primary school.

2.4.1. Unfavourable female labour market outcomes in Korea

Employment indicators show there are some significant differences between the labour markets in Korea and other OECD countries. On average, employment rates are about 3 percentage points below the OECD average (Table 2.3). This is related to relatively low participation rates for young people (as related to high participation in secondary and tertiary education, see below), and women of all ages. At 22.5%, the gender employment gap in Korea is among the highest in the OECD area. In contrast to other OECD countries the incidence of part-time employment is low;

Table 2.3: In Korea, the incidence of part-time employment and employment rates for young people and women are low, but the incidence of temporary employment is high

Poverty rate by household type(1) and trends in household composition

	Employment population ratio						Incidence of temporary employment in percentage of dependent employment			Incidence of part-time employment in percentage of dependent employment		
	Total	Age			Gender							
		15-24	25-54	55-64	Men	Women	Total	Men	Women	Total	Men	Women
Australia	71.6	63.6	78.8	53.7	78.5	64.7	5.5	5.0	6.1	27.3	15.7	41.7
Austria	68.6	53.1	82.6	31.8	75.4	62.0	8.9	9.2	8.4	16.2	4.8	29.6
Belgium	61.0	26.6	78.3	32.1	67.7	54.1	8.7	6.3	11.6	18.1	6.2	33.1
Canada	72.5	57.8	81.3	54.8	76.7	68.3	12.8	12.0	13.5	18.3	10.8	26.9
Czech Republic	64.8	27.3	82.0	44.6	73.3	56.3	9.5	8.4	10.7	3.3	1.6	5.5
Denmark	75.5	62.0	83.9	59.8	80.1	70.8	9.8	9.1	10.6	18.0	12.0	24.9
Finland	68.0	39.2	81.7	52.6	69.4	66.5	16.2	12.8	19.6	11.2	7.9	14.8
France	62.3	26.0	79.6	40.7	67.8	56.9	12.3	10.8	13.9	13.6	5.3	23.3
Germany	65.5	42.6	77.4	45.5	71.4	59.6	12.2	12.1	12.3	21.8	7.4	39.4
Greece	60.3	25.3	74.3	41.6	74.5	46.2	12.4	11.0	14.5	6.1	3.0	11.1
Hungary	56.9	21.8	73.7	33.0	63.1	51.0	6.8	7.5	6.2	3.2	1.8	5.0
Iceland	84.4	71.6	88.2	84.8	87.4	81.2	9.6	9.5	9.7	20.1	10.2	31.2
Ireland	67.1	46.3	78.0	51.7	76.2	58.0	3.4	3.0	3.9	18.6	6.8	34.8
Italy	57.5	25.5	72.2	31.4	69.7	45.3	11.9	9.7	14.9	14.7	5.3	29.2
Japan	69.3	40.9	79.0	63.9	80.4	58.1	13.9	8.0	22.2	25.8	14.2	42.3
Korea	63.7	29.9	73.4	58.7	75.0	52.5	29.4	27.1	32.5	9.0	6.5	12.5
Luxembourg	63.6	25.0	80.6	31.7	73.4	53.7	3.2	2.5	4.1	14.0	1.7	31.1
Mexico	59.6	43.7	68.7	52.5	80.2	41.5	20.3	24.9	11.9	15.1	8.1	27.6
Netherlands	71.1	61.9	80.9	44.9	77.4	64.8	14.6	13.2	16.3	35.7	15.3	60.9
New Zealand	74.6	56.9	82.0	69.7	81.5	68.0				21.7	10.2	35.3
Norway	75.2	52.9	83.2	67.6	78.3	72.0	9.9	8.3	11.7	20.8	10.0	32.9
Poland	53.0	20.9	69.5	29.1	59.0	47.0	22.7	23.7	21.5	11.7	7.1	17.4
Portugal	67.5	36.1	80.8	50.5	73.4	61.7	19.9	18.7	21.1	9.8	5.9	14.4
Slovak Republic	57.7	25.6	75.3	30.4	64.6	50.9	5.6	6.1	5.1	2.6	1.4	4.1
Spain	64.3	41.9	74.4	43.1	76.4	51.9	30.4	28.4	33.2	11.4	4.2	22.2
Sweden	73.9	42.5	83.9	69.6	75.9	71.8	15.1	13.1	17.1	..	..	..
Switzerland	77.2	59.9	85.1	65.0	83.9	70.4	12.3	12.0	12.6	25.1	8.0	45.8
Turkey	45.9	31.2	54.1	30.8	68.2	23.7	16.2	16.6	14.9	5.8	3.2	13.4
United Kingdom	72.6	58.1	81.1	56.8	78.6	66.8	5.7	5.2	6.3	23.6	10.0	39.3
United States	71.5	53.9	79.3	60.8	77.6	65.6	4.0	3.9	4.2	12.8	7.8	18.3
OECD	66.6	42.3	78.1	49.4	74.5	58.7	12.5	11.7	13.5	15.7	7.3	26.5

Source. OECD (2006), Employment Outlook apparently not many mothers and fathers use part-time employment opportunities as a tool to better map work and care commitments[6]

One striking feature of the Korean labour market is the widespread use of temporary, non-regular employment contracts, especially among female workers (for more detail on labour market duality in Korea see, Grubb *et al, 2007, forthcoming*). Such non-regular workers are often considerably less expensive to employers than regular employees It is difficult to compare age-related wages of regular workers with hourly earnings of non-regular workers, but the latter are considerable lower; about 70% of what regular workers earn (Grubb *et al*, 2007, *forthcoming*). Moreover, even if wages were equivalent, non-wage labour costs are not Non-regular workers are not covered by stringent employment protection legislation in the same manner as regular workers, less likely to be covered by social insurance benefits, and often not entitled to retirement allowances (severance payments) and other fringe benefits.

Female employment rates are well below those for men in Korea and at 22 5%, the gender employment gap is large in international perspective. This despite that for women in the age group 20-24, the employment rate (at close to 60%) is higher than for their male counterparts (this feature is also related to the conscription of young males into military service) However, the pronounced dip in the 'Korean M-curve' suggests that more than in other OECD countries Korean women leave the labour force, if not on marriage, then on childbirth (Chart 2 7) Korean women return to employment at a later age, but across the life-course employment rates remain considerably lower than for men of the same age

Moreover, while one third of both men and women are in temporary employment in their twenties, this incidence decreases for men in their thirties, but it increases to 40% for mothers of childbearing age (Grubb *et al*, 2007, *forthcoming*) If mothers do return to employment, they are likely to end up in low paid non-regular employment.

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[6] As it allows more time for caring, part-time employment is often regarded as an attractive work and family reconciliation solution (e g the Netherlands, Switzerland), especially when children are very young (e g Australia and New Zealand) In the EU-countries, part-time employment is generally remunerated on a pro-rata basis compared to full-time employment By contrast, regular employment contracts in Korea hardly ever facilitate part-time employment

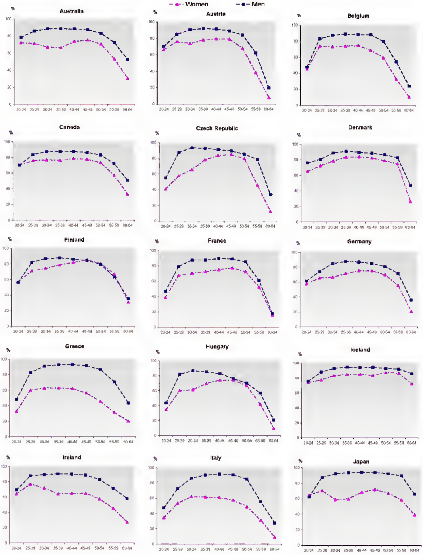
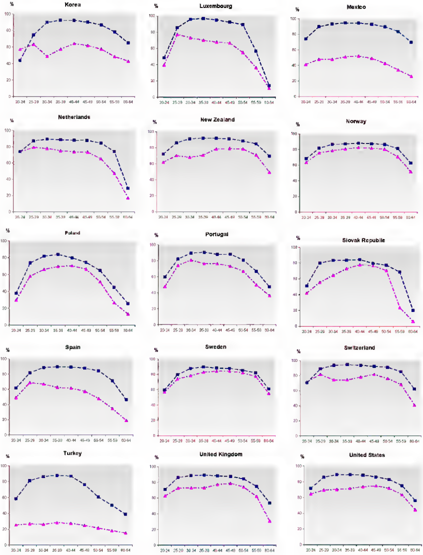


Chart 2.7: Women in Korea often quit jobs on marriage or childbirth

Age-employment profile of men and women: 'synthetic' cross-cohort comparisons on basis of cross-section data on employment by age and gender

Chart 2.7· Women in Korea often quit jobs on marriage or childbirth (cont.)



2.4.2. Barriers to maternal employment in Korea

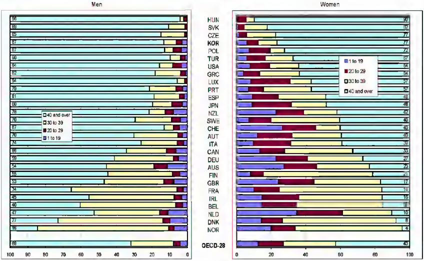
Limitations in formal childcare support, a system of maternity leave which is still being developed and the absence of a comprehensive formal system of long-term care support (see section 4, below), mean that young mothers and those with care commitments to elderly relatives receive little public support to help them match work and family life. However, the limitations in public support are only part of the story; prevailing labour market practices are not conducive to maternal labour market participation and female career and earnings progression more generally.

First of all, Korea has a 'long working hours' culture. More than 86% of male workers engages in employment for more than 40 hours per week (this is 68% on average across the OECD) and more than 3 out of 4 Korean women work more than 40 hours per week, while this is only 43% of female workers on average across the OECD area, and 10% or less in Denmark, the Netherlands and Norway (Chart 2.8). In addition, there is unpaid overtime, commuting times often take at least another hour in urban areas, while, for men at least, there is also a culture of socialising with colleagues after working hours.

The long-hours culture in Korea is related to the nature of the prevailing 'regular' employment relationship. About 52% of the Korean workforce, and over 62% of male workers (and 38% of female workers), are so-called *regular* employees (KNSO, 2005). These workers have a long-term (sometimes life-time) employment relationship with their employer. In this system, employees are trained in-house, receive retirement allowances (severance payments) and

Chart 2.8: Korea has a long-working-hours culture

Share of workers by distribution of usual weekly hours of work, by gender, percentages adding to 100%, in 2005



Note: countries are ranked in decreasing order of the share of female workers working 40 hours or more per week.
Source: OECD database on Working hours.

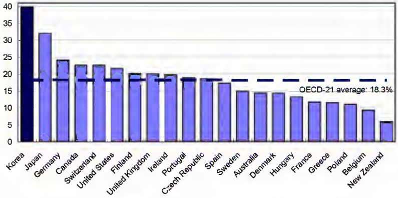
possibly other fringe benefits. Compensation is essentially seniority-based and strongly linked to certified skills, age and tenure loyalty to the firm is strongly linked to certified skills (*e.g.* university degree), age and tenure, as this reflects loyalty. In return, such workers accept a 'flexible' adjustment of working conditions, and signal their commitment to their employer and career by putting in long hours, including unpaid overtime and, sometimes, taking less leave than what they are entitled to.

Thus, not only are workplace practices such that working women would often need (formal) childcare services for 9 to 10 hours per day, their working husbands have also little time to help out with daily household chores or the provision of personal care for dependants. Indeed, on a weekday, on average an adult Korean female spends almost 4 hours on daily chores, including family care, while this is only half an hour for Korean men (KNSO, 2005).

In addition to these time-related considerations, many mothers will wonder about the wisdom of returning to work when their remuneration is so low relative compared to men (Chart 2.9). Women in regular employment still find it hard to get through to the glass ceiling. in 2000, the share of women in managerial jobs and/or with supervisory responsibilities is only 8%, compared to 20-30% in many OECD countries and 38% in Canada and New Zealand (OECD, 2004, 2005e and ILO, 2006). Women who come back to work after having established a family ('mother returners') often end up in low-paid temporary employment. Under these conditions it is no surprise that women who wish to pursue a career frequently decide not to have children, while potential 'mothers returners' will be tempted to stay at home, if family income allows it.

Chart 2.9: Women are paid less than men, especially in Korea

Gender wage gap, 2003 or latest year available*



* The gender wage gap is measured here as the difference between male and female median full-time earnings as a percentage of male median full-time earnings.
Source: OECD Earnings database.

Korean workplace practices contribute to female workers in particular being forced to make a choice between prioritising career and work commitments over spending a lot of time with elderly dependents or their children (or not having any, or not as many as desired), or becoming more or less full-time homemakers, at least for a few years. Much more than in most other OECD countries (except Japan, see OECD, 2003), the prevailing 'regular' employment conditions support the male breadwinner model which relies on women caring for dependents; a concept which is increasingly out of date and at odds with the aspirations of many women in Korean society.[7]

2.4.3. Labour supply considerations

Employers are aware that mothers have to make work and family choices. In fact, many employers expect women, regardless of their level of educational attainment to withdraw (at least temporarily) from the labour force upon marriage and/or childbirth, and therefore, they are likely to consider women as less committed to their career than men. As a result, employers are less likely to invest in female workers and their career prospects. To some extent this is a vicious circle. As female workers have limited incentives to pursue a career if they perceive the likelihood of advancement to be more limited than for men, they are more likely to leave the labour force.

The result is that employers in Korea do not use potential labour resources efficiently, they do themselves a great disservice by shutting out a large part of labour force potential. In addition to the negative implications for future society of women choosing not to have children, the constraints to labour force participation of women who do have children reflect a considerable waste of human resources, and investment therein. Indeed over the last 20 years, the level of educational attainment among young women has increased at a pace not seen elsewhere across the OECD area (Chart 2.10). It is time for Korean employers to start using these resources more efficiently.

Changing workplace practices is difficult and will inevitably take some time. One step forward would be to strengthen the link between employment patterns and performance, and to reduce the role of seniority-based pay increments. Rather than expecting women to quit their jobs on marriage/childbirth, employers could start to encourage women to take parental leave, and keep them informed of workplace development in their absence. Such initiatives can increase the likelihood that mothers return to the workplace within a limited period of time. Increasing equity among non-regular and regular workers, while improving the flow between the two types of employment, would also increase the likelihood that "mother returners" find a job, which suits their ability and training.

There is a 'business case' for employers to introduce family-friendly policy measures, because such measures will contribute to the quality of the enterprise-workforce by retaining some who would otherwise quit, and by attracting those workers who value family-friendly workplace support (e.g. flexi-time, regular part-time work, childcare support). Both these factors contribute to a reduction in recruitment and training costs. Family-friendly support is also likely to contribute to the motivation, flexibility and productivity of the workforce.

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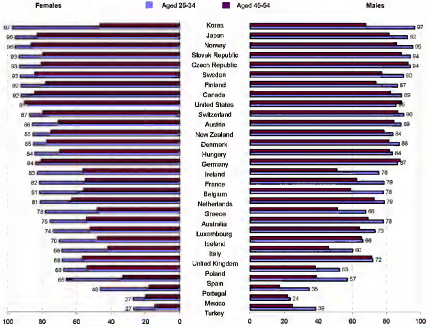
[7] Despite substantial changes in the Civil Law in 1989, elements of the traditional male-centred "hojeok"system remain. For example, women must register with the family of the husband and sons have priority succession rights over daughters (Kim and Kim, 2004).

However, the OECD *Babies and Bosses* reviews found that while employers who had introduced such measures were enthusiastic about their effect, there were many other work places without family-friendly workplace practices. Managers are often not aware of the benefits of family-friendly measures or are otherwise unwilling to make the initial investment because of the associated costs, which are often perceived to be high and/or otherwise considered as unfair to burden employers with. Obviously, these considerations vary across work places, shift-production enterprises will find it much more difficult (and probably less rewarding) than, for example, law-firms with a high proportion of female lawyers.

Governments across the OECD are also reluctant to directly intervene in industrial bargaining processes in order to promote the adoption of family-friendly policies, and even if they did, public directives alone do not easily change workplace cultures. As a result, authorities often limit themselves to information campaigns or other initiatives to increase awareness on the virtues of family-friendly policies. In other OECD countries, measures (e.g. partial subsidisation) that promote the provision (on consultancy basis) of practical and tailored advice to improve the fam-

Chart 2.10: Over the last 20 years the proportion of young women in Korea who have completed secondary education has doubled to almost 100%

Percentage of population that has attained at least an upper secondary education, by gender and age group, 2004



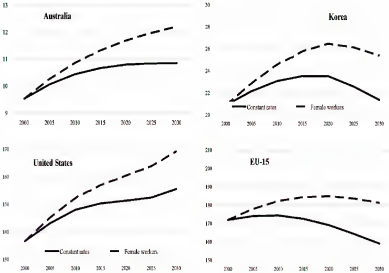
Countries ranked in descending order of female educational attainment for the age group 25-34
Source: OECD Education

ily-friendliness of work places have proved to be effective on an enterprise basis, even though these are small-scale initiatives (Box 2)

Given the extraordinary speed with which ageing dynamics will play out in Korea, employers associations, unions and the government will soon face the need for more family-friendly workplace practices If female and male labour force participation rates remain as they are, then *ceteris paribus*, then the Korean labour force will stabilise in terms of numbers around 2015, and start to decline from 2020 onwards (Chart 2.11) If fairer and more family-friendly workplace practices make it more attractive to enter the labour force, and if female participation rates gradually increase to male participation rates by 2050, then in 2050 total labour supply in 2050 will be higher as at present

Chart 2.11: Looming labour shortages will increase the need for family-friendly workplace practices in Korea

Labour force projections by gender 2000-2005



Constant rates': assumes constant labour force participation rates for men and women from 2000 to 2030, 'Gender equity in labour force participation rates': assumes that female participation rates reach current male participation rates in each country by 2030

2.5. The way ahead

Korean society is going through a profound period of change Traditional family relationships are weakening and households are getting smaller, and increasingly consist of (older) adults without children Higher educational attainment and employment rates for younger generations of women and changes in their values towards greater financial autonomy and lower deference to traditional family roles, have contributed to the decline in fertility rates Because the changes in values and behaviour are structural it is unlikely that birth rates will return to previously very high levels The weakening of family support mechanisms is partially being replaced by public social support measures (including parental leave, childcare, pensions, health and long-term care support, see below) but this development is in its early stages, and public spending on family benefits is low in Korea compared to most other OECD countries, and compared to the public spending on education

Moreover, for a modern welfare state to be effective, labour market institutions must give workers a fair chance to fulfil their individual aspirations and provide for their children In Korea, however, female workers often have to choose between work and family commitments Gender wage gaps are large, and workplace practices are such that mothers do not return to employment, and if they do, find it difficult to get back into regular employment and end up, in low-paid jobs that do not do justice to their skills and training

Korea will need 'mother returners' to keep its economic engine going in future, and the labour market will have to change in order to provide them with the hours, jobs, wages and careers which will entice them (back) into employment Employers, unions and the government will all have to work together to limit the barriers to employment women and mothers, reduce the existing gender discrimination in pay practices (and thus the huge gender wage gap), reduce the role of seniority wages, and increase the prevalence of performance-related pay, introduce workplace measures as regular part-time employment opportunities, flexi-time options that can be used (also on a temporary basis) without this being detrimental to career progression

Employers need to make a better use of the younger generations of women and mothers with levels of educational attainment that are at least as high as for their male counterparts. the limited labour force participation of mothers reflects a staggering waste of investment in human capital Public childcare support may also need to be developed, while husbands could devote more of their time to household chores and personal care provision. Giving Korean women and men a realistic chance to combine work and family commitments is key to increasing future labour supply and it also seems to be a promising strategy for stopping the fall in birth-rates, and improve them in the longer term.

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Preparing the pension system for the future

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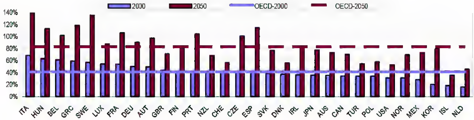
3. Preparing the pension system for the future

The challenges posed by demographic changes to OECD countries are well recognised. As discussed above, all 30 OECD countries are experiencing significant population ageing due to falling fertility rates and increasing life expectancy. The share of the population aged 65 years and over is projected to nearly double between 2000 and 2050 in OECD countries on average. The increase will be somewhat slower in societies that already have large populations of older people (Belgium, France, Germany, Sweden, and the United Kingdom). It will be most marked in what are now some of the "younger" countries in the OECD, such as Ireland and, particularly, Korea.

The sharpest effects will generally be felt over the next two-to-three decades, as the baby-boom generation reaches retirement age. But this will be preceded by a growing share of older people in the population of working age. Moreover, unless fertility rates rise, future gains in longevity will continue to increase the old-age dependency ratio: the number of people of retirement age relative to the number of working age. By 2050, the number of retirees per worker will have quadrupled in Korea reaching the projected OECD average of approximately 8 retirees for every 10 workers (Chart 3.1). Given this context, it will be particularly important for Korea to make the pension system both financially and socially sustainable for the future.

Chart 3.1: The proportion of per worker will quadruple in Korea over the next 50 years

Retirees per workers, 2000 and 2050



Source: OECD (2007), Society at a Glance: OECD Social Indicators

3.1. The current situation

3.1.1. Pension spending will increase rapidly

Projections undertaken by the OECD taking account of pension reforms that are still being phased-in show that old-age pension spending in member countries could rise on average by 3 to 4% of gross domestic product (GDP) in the period up to 2050, from a base of around 7.5% of GDP in 2000. The size of the increase varies widely, with increases around 5% of GDP or more in Canada, the Czech Republic, Finland, Germany and the Netherlands to close to 8% of GDP in Korea, Norway and Spain. Given this context, either the costs of social programmes will increase, and with them the contributions and taxes required to finance benefits, or benefit levels will have to be reduced, or deficits will increase, or there will be some combination of these.

Today, spending on old-age benefits is still low in Korea. In 2003, total public pension expenditure amounted to 1.0% of GDP - with another 2% of GDP spent on employer-provided mandatory private severance payments that are often used in retirement - compared to an OECD average of 5.9% (OECD, 2007a). This low level of spending can be explained by the relatively recent introduction of the Korean pension system. The National Pension Scheme (NPS) started operations only in 1988 and has thus not matured yet. The first full pensions will be paid out by the system in 2008. In addition, coverage of the NPS was limited in the beginning and extended only gradually, reaching about half of the labour force today. Government employees, private school teachers, and the military are covered by separate pension schemes, which offer more generous benefits. In addition, there is a small means-tested old-age assistance scheme (see below).

In 2005, less than a third of all Koreans aged 65 years and older received public old-age benefits: 13% received pensions from the NPS, 14% were paid old-age allowances and about 3% were pensioners of the separate occupational schemes. But the total number of insured persons increased from 4.4 million in 1988 to more than 12 million in 2004.

The contribution rate to the NPS currently is set at 9% of earnings. Since outflows are low, most of the contribution revenue currently goes into the reserve fund. The fund already amounted to 15.5% of GDP by 2003 and may double to around 35% by 2015. The proportion of the Fund deposited in the account of the National Treasury for developing infrastructure has fallen from more than half in 1999 to only 6% in 2004, reflecting the decision taken in 2001 to stop making loans to the government. By 2003, the composition of the Fund had changed significantly. The largest proportion is now invested in bonds (85%), with government bonds accounting for about one-third of this category. Equities account for most of the remainder at 7%. To improve the rate of return, the National Pension Corporation began to outsource some of the management of the Fund to asset management companies in 2001, although the share accounts for less than 1% of the total (OECD, 2005a).

Population ageing in Korea, combined with the maturing of the pension system, will result in strong increases of pension expenditures. With the current parameters – a 9% contribution rate and a benefit formula which aims to provide 60% replacement rate for average earner – the NPS would run current deficits by 2030, and the reserve fund would be exhausted by 2047. Ensuring the financial sustainability of the NPS would require a contribution rate of around 20%.

3.1.2. The income situation and poverty among the elderly

Over recent decades, older people in OECD countries have enjoyed steady gains in their incomes relative to the population, with the result that poverty rates have fallen both in absolute terms and relative to younger age groups; income inequality among the population of pension age also tends to be lower than among younger age groups (OECD, 2005f). On average in OECD countries, the incomes of people aged 66-74 are over 80% of the population average, adjusting for differences in household sizes (Förster and Mira d'Ercole, 2005). This ratio ranges from a low of 77% in Ireland and the United Kingdom to 95% in Canada and the United States.

The replacement rates provided by the Korean pension system are relatively close to average in international comparison. A Korean full-career worker on average earnings entering the labour market in 2004 can expect a gross replacement rate of 59.4% and a net replacement rate of 63.6% when he retires at age 65. The respective OECD averages are 58.0% and 70.5%. The system also redistributes towards low-income workers. A worker earning only half average earnings can expect a gross pension that equals earnings and a net replacement of 105% after a full career (OECD, 2007d, *forthcoming*).

In addition, there is an income and asset-tested old age assistance scheme, which provides very low benefits. Persons aged 80 or above receive KRW 50,000 per month (about USD 52, or about 2.35% of average earnings according to the OECD earnings measure), and those aged between 65 and 79 receive KRW 45,000. Lower allowances are also paid on a monthly basis to the elderly whose level of income is slightly higher than those above but overall income stream remains inadequate to meet their basic needs.

Compared to the overall population, elderly households face an elevated poverty risk (Table 1.1). The primary reason for the high incidence of old-age poverty is that coverage of old-age income arrangements is not wide-spread in Korea. Even though the NPS today formally covers all private-sector employees, employers, and the self-employed, either on a compulsory or a voluntary basis, actual coverage remains low. in 2004, 12.4 million persons contributed to the scheme corresponding to 55% of the labour force. In addition, under-reporting of incomes by the self-employed is frequent which leads both to low pension entitlements and to low revenues for the system.

Another reason for high old-age poverty is that the pension system has not yet matured. The public scheme which requires twenty years of contributions for the full pension started to collect contributions only in 1988. Even though there are some pensioners who are receiving pro-rated benefits for less than full careers or early old-age pensions, almost 90% of benefit entitlements of the elderly result from the old-age allowance scheme.

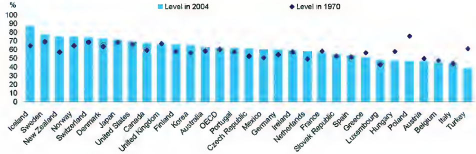
As the pension system matures and more and more retirees will receive full benefits, poverty among the elderly is likely to decline. Given the rapid ageing process in Korea, however, benefits will likely need to be reduced in order to make the pension system financially sustainable. Moreover, the sharp drop in fertility rates increases the burden on future working age populations and is likely to contribute to a continued decline in family support through extended family networks. Particular attention thus needs to be paid to the situation of low-income elderly and the impact of any future pension reforms on this group finding an efficient way to protect older persons from poverty is becoming increasingly urgent.

3.1.3. Retirement behaviour and the situation of older workers

An obvious measure to respond to demographic ageing would be to increase the proportion of the population in work. This would increase the tax/contribution base, meaning that increases in rates of taxes or contributions would not need to be as great. Moreover, increasing employment at older ages (and so the effective age of retirement) would have a "double impact": both increasing the number of contributors to finance social protection and reducing

Chart 3.2: Labour force participation rates of older people vary considerably across OECD countries

Labour-force participation rates of 50-64 year olds



Source OECD (2006), Live longer, Work Longer.

the number of pensioners to be supported at any point in time.

Chart 3.2 shows that across OECD countries there are considerable differences in the proportion of older people (age 50-64) in work. At least two out of three older workers participate in the labour market in the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), in a series of English-speaking countries (Canada, New Zealand, the United Kingdom and the United States) and in Japan, Korea and Switzerland. The lowest participation rates are found in continental Europe, with fewer than one in two 50-64 year olds participating in the labour market in Austria, Belgium, Italy, Luxembourg and Poland.

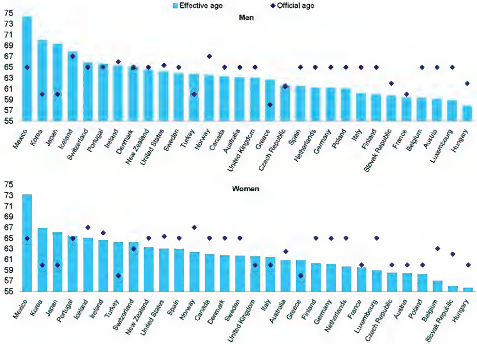
Most OECD countries have a 'normal' (or standard) pension eligibility age of 65. In Korea, a full old-age pension is currently available from age 60 provided the individual has contributed for ten years or more. A reduced, early pension can presently be drawn from age 55. However, the 'normal' pension age will reach 65 years by 2033.

The range of participation rates at different ages, however, implies that people retire effectively at very different ages in OECD countries. For example, in 21 out of 30 OECD counties, the average effective retirement age for men is below the normal pension age, and most men have left work by their 60th birthday in Austria, Belgium, France, Hungary, Luxembourg and the Slovak Republic (OECD, 2006d). In seven countries, including Iceland, Japan and Switzerland, the effective retirement age is over 65. The effective retirement age for men has been declining, which, coupled with increases in life expectancy, has led to a considerable increase in the number of years spent in retirement. For example, whereas men could expect to spend around 10 years in retirement on average in OECD countries in 1970, this had risen to around 20 years in 2004.

The effective retirement age in Korea, however, is higher than in all other OECD countries, except Mexico; for the period 1999-2004, men retired when they were 69 years of age (Chart 3.3). This late effective retirement, however, at least partly reflects the fact that older people in the rural areas stop working much later than their counterparts in the urban areas. For non-farm households, the average age of retirement for men is much closer to but still above

Chart 3.3: The effective retirement age of Korean workers is high

Effective and official age of retirement, 1999-2004a



a) The effective age of retirement refers to the average age at which persons aged 40 and over left the labour force during the period 1999-2004. The official age of retirement refers to the earliest age in 2004 at which workers are entitled to a full old age pyblic pension irrespective of contributions and work history.

Source: OECD (2006), Live Longer, Work Longer.

the OECD average. Increasing urbanisation of the Korean population could thus potentially lead to a decline of the effective retirement age in parallel with that observed in other OECD countries. The maturing of the pension system will also have an impact on retirement behaviour. Since 70% of people over 65 have no pension entitlements today, retiring is not an option for many elderly. As entitlements accrue and pensioners receive full benefits, the effective retirement age may well to fall.

Preparations for an ageing workforce have started early in Korea compared to most other countries, in particular as regards policy measures to improve the labour market situation of older workers. The Aged Employment Promotion Act of 1991, for example, provides a comprehensive framework covering a range of measures to promote better employment opportunities for older workers and sets out the respective responsibilities of the government and social partners. The Act has led to the introduction of wage subsidies for older workers, a voluntary quota system for larger firms encouraging employers to hire more elderly workers, specialised employment offices for older jobseekers and a small number of training programmes for older people. There is still scope for further action, however, in the areas of changing seniority-based wage and employment practices, income support arrangements (as discussed above), and enhancing the employability of older workers (OECD, 2006d and *Ageing and Employment Policies*, various years). More generally, working conditions also need to be improved. Long working hours may be particularly onerous for older workers, and the incidence of work accidents and fatalities remains high.

Improvements in the labour-market prospects of older workers are also important from the perspective of the living standards of these age groups (also when they finally enter retirement). In most OECD countries, people aged 50-64 are already the age group receiving the highest shares of public transfer expenditure, apart from those aged 65 and over. In the year 2000, people aged 51-65 had the second highest level of relative disposable income of any age group (111.9% of the population average). Those aged 41 to 50 were only slightly better-off, with average income of 112.8% of the population average (Forster and Mira d'Ercole, 2005). However, the incidence of disability and rates of receipt of disability benefits tend to rise significantly after the age of 50, and this age group is also more likely to experience long-term unemployment than other groups (OECD, 2003c). This suggests considerable disparities in living standards, between those at the peak of their work careers and those excluded from or with difficulties in the labour market. Increases in the employment of the excluded and disadvantaged groups could improve their standard of living - particularly for lower income people - and, potentially, improve their living standards in retirement.

3.1.4. Moving from retirement allowances to private pension schemes

The Korean retirement allowance system is a rather unusual feature of social protection systems in the OECD context. Only Italy and Japan have similar systems. The Korean system was established in 1953 to protect dismissed workers in the absence of an unemployment insurance scheme, the scheme became mandatory in 1961. Companies with 5 or more employees are required to pay workers who were employed a year or more and are leaving the firm one month of wages for every year of service. These severance payments are called retirement allowances as they are often paid upon cessation of a regular employment contract around the age of 60-65, even though many of these older workers then continue working as non-regular or temporary workers (Grubb *et al*, 2007, *forthcoming*).

The amount is based on the worker's average wages during the three months prior to leaving the company. The schemes are unfunded and financed by "book reserves": 8.3% (1/12) of wages are set aside every year on the balance sheet of the company (in case of a firm's bankruptcy, only 3 years of entitlements are covered). About 50% of all workers (the vast majority of regular workers) are covered by these severance payment schemes for which payouts amounted to about 2% of GDP in 2003 (OECD, 2007a).

Since Korea introduced an unemployment insurance scheme in 1995 since when it has gradually expanded, there is a case for converting the retirement allowance scheme into a true private pension scheme (a scheme in which benefits are not available before the standard or normal retirement age), providing either lump-sums or annuities at retirement. Like in Italy, this option was discussed in Korea but the conversion into a private pension scheme was made optional. One reason was that the unemployment insurance scheme effectively covers only a small part of the population (in 2005, just over a quarter of the unemployed received benefits), so that in case of job-loss many people will access their severance payments immediately and not when they retire (around the 1997-crisis payouts by severance payment schemes were high and made to many younger workers, OECD, 2007a). Low unemployment insurance coverage is thus an obstacle to the conversion of severance payment schemes funds into pension funds.

A new corporate pension scheme was introduced in 2005 and workers can decide whether to convert their retirement allowances into these schemes or retain the existing arrangements. Conversion can take the form of defined-benefit or defined-contribution schemes. Currently, only firms with 5 or more employees are covered but the extension to smaller firms is envisaged for 2008-2010.

The experience of OECD countries, like Germany and the United Kingdom, shows that smaller benefits provided by public systems need to be supplemented by private pension provision. Similarly, when in the medium term the NPS benefit promise is being scaled down, private pension arrangements are likely to become more important in the overall provision of retirement income. The large household sector net asset holdings (about 70% of GDP)[8] will also play an increasingly important role in retirement income provision.

3.2. Korean pension reforms in an OECD context

Most OECD countries have substantially changed their retirement-income systems in the last 25 years. In some cases, there has been a single, "big-bang" pension reform, but in others, changes have been regular and incremental. The main, although not sole, motivation for reform has been to strengthen the financial sustainability of public pension systems. Cuts in future public pension benefits are one of the main ways that governments have improved affordability of pension systems. For obvious political reasons, these changes have often exploited the complexity of pensions to reduce future benefits in less-than-transparent ways, and only Austria and Japan have directly cut the accrual rate in the public, defined-benefit plan.

Governments have also often recognised that across-the-board benefit cuts might increase the risk of inadequate income in retirement and a resurgence of old-age poverty. As a result, reforms have often been targeted at public pension spending on low-income older people whilst encouraging middle and high earners to take out voluntary, private pensions.

3.2.1. An OECD perspective on pension reform

The elements of major reforms to retirement income systems in OECD countries that have occurred since 1990 are shown in Table 3.1. Some of the most significant types of change include:

- *Changes in the number of years used in benefit calculation.* Earnings-related schemes in many OECD countries used to calculate benefits with respect to only a few years of final or best earnings. Seven OECD countries have extended the period over which earnings are measured (Austria, Finland, France, Poland, Portugal, Slovak Republicand Sweden). This will tend to cut pension benefits because best or final earnings are usually higher than lifetime averages. Moreover, the benefit cuts under this change are focused on people with steeply rising profiles of earnings with age. These people tend to be higher paid: low-skilled workers typically have flat age-earnings profiles. Today, most OECD countries have moved towards the use of life-time earnings. Korea too bases the individual earnings measure on lifetime average earnings but includes a benefit component based on economy-wide average earnings in the pension calculation.

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[8] The OECD Analytical database (ADB) shows that household sector assets are about 145% of GDP (or 1,166 trillion won) with household liability at 617 trillion won (75% of GDP).

- *Changing the valorisation of past earnings.* In all earnings-related public pension systems of OECD countries, past earnings are re-valued to take account of changes in living standards between the time pension rights accrued and the time they are claimed. (This process is sometimes also called pre-retirement indexation.) The majority of OECD countries with earnings-related schemes valorise past earnings in line with economy-wide wage growth. However, several OECD countries have moved from earnings to price valorisation. For example, France moved to prices valorisation in the public scheme in the 1980s and in the occupational schemes in 1996. Valorisation is a highly technical policy issue, but it has a large effect on the value of pension benefits. Assuming real wage growth of 2% and price inflation of 2.5%, prices valorisation for a full-career (20-65) results in a pension that would be 40% lower than a policy of full adjustment of earlier years' pay in line with economy-wide average earnings. This is due to the "compound-interest" effect.

- *Changing the indexation of pensions in payment.* In recent years, many OECD countries have moved away from indexation of pension benefits to earnings towards full or partial indexation to prices. Korea too follows this practice. Price indexation preserves the purchasing power of pensions, but means that pensioners do not share in general growth in living standards. This improves the financial sustainability of pension systems, but may pose challenges for long-term political sustainability (see the Pensions Commission, 2005). Austria and Italy now increase higher pensions by less than price inflation, while small and medium pensions are indexed to prices.

- *Linking pensions to higher life expectancy.* Several OECD countries will in future reduce pension benefits to reflect increases in life expectancy. In notional-accounts and defined-contribution schemes, this occurs automatically in the annuity calculation: the way in which pension accumulations are converted into an income stream. Austria, Germany and Japan aim to reduce pensions as life expectancy increases in defined-benefit or points systems. In addition, these three countries (and Sweden, in its notional-accounts scheme) also aim to adjust benefits to reflect the financial sustainability of the system. In Germany, for example, this adjustment is linked to the ratio between the number of contributors to the pension system and the number of pensioners. However, no country directly links the pension eligibility age to changes in life expectancy.

- *Increasing pension eligibility age.* In most cases, increases in pension age affect only or mainly women, as reforms equalise pension age between the sexes. Increases in pension age that affect both men and women are being implemented in the Czech Republic, Greece, Hungary, Italy, Japan, Korea, New Zealand and the United States.

- *Increasing the reward for continuing in work.* Many OECD countries have introduced or increased penalties for early retirement or increased the number of years of contributions required to receive a full pension. Similarly, other countries have introduced or increased the increments paid to people retiring after the normal pension age (Queisser and Whitehouse, 2006).

- *Introducing mandatory defined-contribution plans.* Hungary, Poland, the Slovak Republic and Sweden have all introduced defined-contribution plans as a substitute for part of the public, earnings-related pension scheme. Usually, some or all workers had a choice over whether to stay with the public, earnings-related pension or switch to mixed public/private defined-contribution provision. Australia's defined contribution plan was added to the existing means-tested public pension. In Mexico, the old public pension was entirely replaced by defined-contribution plans. However, the government guarantees both a minimum pension income and that pension paymentswill not be less than those provided under the old scheme (see Mattil and Whitehouse, 2007, *forthcoming*, for a more detailed discussion).

OECD pension reforms have a number of common features. Changes in earnings measures, less generous procedures for valorisation and indexation, direct cuts in accrual rates and links with increases in life expectancy or system solvency are all aimed at cutting benefits in the future. Indeed, all countries shown in Table 3.1 have taken at least one measure that will cut future expenditures. Measures to improve incentives to stay in work, if they are successful, will also improve system finances on both the revenue and expenditure side. Policy has diverged on the relationship between earnings and pensions, with some countries, such as France, Sweden, and the United Kingdom, targeting public pensions more on low earners, while in contrast Italy, Poland and the Slovak Republic have moved to strengthen the link between pensions and past earnings.

Many of these reforms imply a significant rebalancing of responsibility for pension provision between the public and private sectors, which amounts to implicit or explicit "privatisation" of pensions. For example, cuts in mandatory, public benefits are likely to result in a greater role for voluntary, private provision by individuals and/or their employers. In cases where pension benefits have become more targeted, it is middle and high earners who will most need to provide for their own retirement in the future. The substitution of private defined contribution plans for public, earnings-related provision has been explicit in some countries including: Hungary, Mexico, Poland, the Slovak Republic and Sweden.

Is there an optimum approach to reform? As noted by Barr (2004), the range of choice about pension design is wide and a given set of objectives can be achieved in different ways. Any reform proposal must of course start with the pension system that already exists, and it must also be appropriate to the social and economic context of the specific country seeking reform. As the previous discussion has shown, OECD pension systems are very diverse in their target replacement rates, in the strength of the link between earnings and pensions (that is, the weights attached to the "adequacy" and "insurance" role of pensions), and in the mix of public and private provision. In this sense, there is no ideal system: all have their strengths and weaknesses.

Table 3 1: Reforms to national retional retirement income systems since 1990, selected OECD countries

Country	Pension eligibility age	Adjusted retirement incentives	Change of years in benefit formula or qualifying conditions	Link to life expectancy and/or financial sustainability	Defined contribution scheme	Other
Australia	Pension age for women rising from 60 to 65 Increase from 55 to 60 in age to access private pensions	New lump-sum bonus for deferring public pension.		Through annuity calculation in DC scheme	Mandatory DC scheme introduced in addition to public pension	Lower withdrawal rate for income test in the public pension
Austria	Early retirement age increased by 1.5 years. Pension ages for women aligned with those of men	Benefit reduction for early retirement introduced and set to increase. Tighter access to early retirement	Best 15 years to 40 years	Introduction of sustainability factor under discussion		Reduction in accrual rate. Less generous indexation for higher pensions.
Belgium	Pension age for women aligned with that for men		Contribution condition for early retirement at 60 tightened			
Czech Republic	Phased increase in normal pension ages to 63					
Finland		Increased accrual rate for people working age 63-67.	10 last years to lifetime average	Life expectancy multiplier (from 2010)		Basic part of national pension income-tested Less generous valorisation of past earnings and indexation of pensions in payment.
France		Changes in adjustment to benefits for early/late retirement in public and occupational pensions	Minimum contribution period increased Earnings measure in public scheme from best 10 to best 25 years	Minimum contribution period to increase further with changes in life expectancy.		Targeted minimum income of 85% of minimum wage. Valorisation now effectively to prices in both plans
Germany		Reduction in benefits for retirement before 65		Valorisation and indexation cut back as system dependency ratio worsens	Voluntary DC pensions with tax privileges	Phased abolition of favourable tax treatment of pension income.

Table 3 1: Reforms to national retional retirement income systems since 1990, selected OECD countries

Country	Pension eligibility age	Adjusted retirement incentives	Change of years in benefit formula or qualifying conditions	Link to life expectancy and/or financial sustainability	Defined contribution scheme	Other
Greece	Pension age rising from 58 to 65					
Hungary	Gradual increase in pension age 55 for women and 60 for men to 62 for both	Accrual rates linear rather than higher for earlier years.		Through annuity calculation in DC scheme	DC scheme mandatory for new entrants, voluntary for existing workers.	Minimum pension to be abolished. Less generous Indexation of pensions in payment
Italy	Normal pension age for men from 60 to 65 and women from 55 to 60. Early pension age for men with 35 years' coverage increases from 60 to 62	Adjustment to early-retirement benefits through notional annuity calculation.	Qualification years for long-service pension increased from 37 to 40 years.	Through notional annuity calculation		From DB to notional accounts. Less generous indexation of higher pensions.
Japan	Pension age increasing from 60 to 65			Benefits adjusted to reflect expected change in dependency ratio		Accrual rate reduced.
Korea	Pension age rising from 60 to 65					
Mexico					Mandatory private DC scheme replaces public, DB plan	
New Zealand	Pension age increased from 60 to 65				Voluntary DC pensions with auto-enrolment and incentives.	
Poland	Withdrawal of early retirement for certain groups of workers		From best consecutive 10 in final 20 to lifetime average	Through notional annuity calculation in public scheme and annuity calculation in DC	DC scheme mandatory for new entrants and workers under 30	Abolition of basic pension From DB to notional accounts

Table 3 1: Reforms to national retional retirement income systems since 1990, selected OECD countries

Country	Pension eligibility age	Adjusted retirement incentives	Change of years in benefit formula or qualifying conditions	Link to life expectancy and/or financial sustainability	Defined contribution scheme	Other
Portugal	Pensionable age for women aligned with that for men at 65.	Introduction of increments for late retirement and reductions for early retirement	From best 10 out of last 15 years to lifetime average earnings			
Slovak Republic	Increase in pension ages to 62 for men and women.		From best 5 in final 10 to lifetime average earnings.		DC scheme mandatory for new entrants and voluntary for existing workers	From DB to points system.
Sweden			Best 15 years to lifetime average (public, earnings-related scheme)	Through calculation of notional annuity and annuity in DC schemes Additional sustainability adjustment in notional accounts.	DC scheme mandatory for nearly all workers	From DB to notional accounts.
Switzerland	Pension age for women increased from 62 to 64.					
United Kingdom	Women's pension age and eligibility for guarantee credit rising from 60 to 65	Increment for deferring pension claim increased. Lump sum option added			Employers required to provide access to DC ('stakeholder') pension.	
United States	Increase in full pension age from 65 to 67	Changes in adjustment for early/late retirement				

All types of pension provision involve some kind of risk. From the individual's perspective, the most secure way to provide for resources in retirement is in as diversified a way as possible across both providers and types of benefits. But within a diversified framework, a solid base is required. A financially sustainable, affordable pension system is most likely to deliver on its promises. OECD countries' pension reforms - which nearly all improve long-term financial sustainability and diversify pension provision - are therefore moves in the right direction, although in many cases further reforms may be required (Whiteford and Whitehouse, 2006).

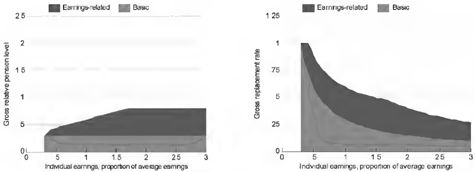
3.2.2. Pension reforms in Korea

The Korean pension scheme for private-sector workers (NPS) was established in 1988. The basic structure of the system has not changed since its introduction. The scheme is earnings-related. At first, only employees were insured, but the self-employed in rural areas and urban areas were included in 1995 and 1999, respectively. In 1999, the replacement rate was reduced. For a worker on average earnings and with a career of 40 years' contributions, the rate was cut from 70% to 60%. The standard retirement age will be gradually increased from 60 to 65 years in 2033.

Benefits currently accrue at the rate of 1.5% of earnings per year of membership up to a maximum replacement rate of 100%. Earlier years' earnings are valorised in line with average earnings. The earnings measure used in the formula is the average of individual lifetime average earnings and economy-wide average pay (measured over the previous three years, valorised with price inflation). The effect of this calculation method is redistribution towards lower-income workers as their pensionable income is increased while people earning more than average income have their pension base reduced. There is a ceiling to pensionable pay of KRW 3.6 million per month, equivalent to 2.4 times average earnings (the payment is indexed to prices after retirement).

Chart 3.4 shows the prospective pension entitlements for full-career workers in Korea entering the labour market in 2004. The component of pension based on individual earnings and the part based on average earnings are shown

Chart 3.4: Prospective gross relative pension level and replacement rate of NPS



Source: OECD (2007), Pensions at a Glance, forthcoming separately. The gross relative pension level shows individual pension entitlements expressed as a percentage of economy-wide average earnings. The left-hand side panel shows that the current system has a flat pension component corresponding to 30% of average earnings.

The government is legally required to review the sustainability of the NPS every five years. In 2003, the government proposed a reduction in the replacement rate from 60% to 50% in 2008, accompanied by a 1.38 percentage point rise in the contribution rate every five years beginning in 2010, boosting it to 15.9 per cent by 2030. Such a contribution rate would be adequate to ensure the financial stability of the NPS through 2070 under fairly optimistic economic assumptions. In particular, real wage growth is projected to remain relatively high at 2% during the decades 2030 to 2050, while the real rate of return on investment is assumed to be 2.5%. Under somewhat less favourable economic assumptions, the contribution rate would have to rise to 17.2%. The 2003 reform proposal remained blocked in the National Assembly. The opposition party put forward an alternative structural reform plan that would introduce a universal basic pension covering the whole population supplemented by an earnings-related component for those insured in the NPS. The basic pension would amount to 20% of economy-wide average earnings and the earnings-related scheme would provide a replacement rate of 20% of individual life-time average earnings requiring a contribution rate of 7%. A similar proposal was made by the OECD in its 2001 Economic Survey of Korea. The government estimated the cost of paying a gradually phased-in basic pension to all persons above 65 and to the disabled at KRW 9.5 trillion in the first year alone and thus rejected this proposal as too expensive.

The most recent government reform proposal that is currently discussed in Korea aims to provide a total replacement rate of 70-80% of previous earnings considering all sources of retirement income, i.e. including public benefits, corporate pensions and individual retirement savings. Under this plan, the current structure of the pension system would not be changed. The NPS would provide a mid-term replacement rate of 50% and an increase in the contribution rate from 9% to 12.9% by 2017. According to government calculations, the contribution rate could be maintained at this level, if the replacement rate dropped to 40% by 2030. At the same time, the pension reserve fund would be increased from 2 to 6 times the fund's annual expenditure. The reform plan envisages the extension of the means-tested, non-contributory old-age assistance. The benefit would be increased to KRW 80,000 per month (about 3% of average earnings using the OECD earnings measure) and the income threshold for means-testing would be raised from currently 120% to 160% of the minimum livelihood level.

The question whether a systemic reform of the pension system, including the introduction of a basic pension, is necessary hinges on the issue of NPS coverage. Given the benefit formula of NPS which already contains a basic and an earnings-related component (see above), the introduction of a universal basic pension would not be necessary if a sufficient proportion of the population were covered by the scheme.

Expansion of the legal coverage and enhanced compliance has boosted the number of persons paying contributions nearly three-fold from 4.4 million in 1988 to 12.4 million in 2004. Nevertheless, the total number of contributors was equivalent to only 55% of the labour force. In addition, there was a large gap in the level of contributions between those ensured through their workplace (1.8 million won in 2003) and individually insured persons (1.05

million won), who tend to be self-employed. Relatively low coverage and small payments by those who are self-employed increases the risk that the NPS will not be adequate to prevent poverty among older persons (OECD, 2005a).

According to Korean government estimates, the percentage of working age people covered by the NPS will reach its highest level at 57.7% in 2025, to decline to 56.2% by 2050 and remain stable thereafter (Table 3.2). The share of recipients of old age, disability and survivors' pensions provided by the NPS would increase from 13.3% in 2007 to 66.3% in 2070. Thus, more than 40% of the working-age population would not contribute to the NPS in the long-term and a third of the elderly population would not receive any pensions from the insurance scheme. This latter group would, of course, be covered by the means-tested old age allowance, and livelihood protection (or social assistance) payments (as subject to a means and family earnings capacity test).

Compared to other OECD countries, the projected share of the uninsured population is rather large. Covering all of the uninsured elderly through the means-tested scheme could turn out to be a major financial and administrative challenge for local authorities. Furthermore, the effectiveness of such a system in preventing large-scale old-age poverty obviously depends on the level at which the old age allowance would be set. As a first step, the government proposes to increase the old-age allowance to KRW 80,000 in contrast to the proposed basic pension which would amount to KRW 310,000 at the start. Obviously, the difference in level already results in much higher fiscal cost of the proposed basic pension scheme. In addition, the basic pension would be payable to all elderly persons rather than only those under a certain income threshold.

The government estimates that the cost of the basic pension would be phased in gradually starting with 0.45 times 20% of average earnings in 2006 increasing every year by 1/40 to reach the target level of 20% average

Table 3.2: Projected trends in the population covered by pension insurance and benefit recipients

	Population by age Thousands		Coverage		Benefit recipients			
Year	18-59 (A)	65+ (B)	Insured population thousands (C)	(C)/(A)	Old Age thousands (D)	(D)/(B)	Disability or Survivor thousands (E)	(E)/(B)
2007	31,045	4,792	17,289	55.7	636	13.3	87	1.8
2010	31,426	5,302	17,623	56.1	1,265	23.9	148	2.8
2015	31,774	6,345	17,858	56.2	2,034	32.1	323	5.1
2020	30,658	7,667	17,444	56.9	2,611	34.1	584	7.6
2025	28,993	9,689	16,719	57.7	4,027	41.6	918	9.5
2030	27,221	11,604	15,663	57.5	5,607	48.3	1327	11.4
2040	23,378	14,533	13,403	57.3	8,374	57.6	2112	14.5
2050	20,504	15,271	11,596	56.6	9,714	63.6	2530	16.6
2060	17,335	14,330	9,748	56.2	9,450	65.9	2427	16.9
2070	15,016	13,056	8,434	56.2	8,657	66.3	2103	16.1

Note : On basis of 2001 Population Projections by the Korean National Statistical Office

Table 3.3 The cost of different proposals for pension reform

Trillions of Korean Won, per cent of GDP, 2006 constant value

Year			2006	2006	2010	2020	2030	2040	2050	2070
			estimates by opposition party	Estimates by National Pension Service						
Proposal by the Opposition part	Basic (A)		9.3	10.7	16.6	43.6	94.4	137.4	171.5	186.7
	Earnings-related (B)		3.8	3.9	6.8	12.5	23.1	38.5	52.7	63.6
	Total (A+B)	Amoun	13.1	14.6	23.5	56.1	117.4	176.0	224.2	250.3
		% GD		(1.9)	(2.5)	(4.3)	(7.1)	(9.3)	(10.4)	(10.9)
Government pension reform proposal	NPS+ basic elderly pension	Amount		7.6	11.5	24.3	49.3	81.6	109.9	134.3
		% GD		(0.9)	(1.2)	(1.9)	(3.0)	(4.3)	(5.1)	(5.9)

earnings by 2028. In the first year alone, the cost would amount to KRW 9.8 trillion compared to a cost of KRW 2 trillion of increasing the old-age allowance. According to National Pension Service's costing of the various proposals, the combination of basic and earnings-related pension would require expenditures of 10.9% of GDP in 2070 whereas the new pension reform proposal would cost 5.9% of GDP (Table 3.3).

The cost of the government's proposal is comparable to pension spending in the United Kingdom, for example. While this level of pension expenditure is fiscally sustainable, it may be difficult to ensure social sustainability with such low spending. The United Kingdom in fact provides an example of benefits being so low that pensioner poverty has become a major policy concern and the government has felt constrained to propose a large increase in pension spending. Given the very low level even of the increased old-age allowance and the large share of non-insured workers, old-age poverty is likely to remain at high levels in Korea compared to the OECD average. As Table 3.3 shows, the proposal by the opposition party would increase total spending markedly and would presumably lead to lower pensioner poverty than the government proposal (though this would depend on the details of the design and implementation of the schemes). However, the cost would be nearly twice that of the government proposal, and expenditure as a percentage of GDP would be similar to that prevailing in some European countries at the moment. The contributions and taxes required to fund such a level of spending would have a negative impact on the labour market. Recent OECD work suggests that every 1 percentage point increase in the tax wedge (the difference between the cost to the employer and the consumption possibilities of the employee) is associated with a reduction in aggregate employment of 0.4 percentage points. As a rough approximation, the opposition proposal would lead to a reduction in Korean employment of as much as two percentage points or morebelow that which would occur with the government proposals. The choice between the two proposals therefore comes down to a choice between a higher level of pensioner poverty and lower taxation or a lower level of pensioner poverty, higher taxation and lower employment. There is no 'right' answer in making this choice it is up to the Korean people to decide.

Towards a sustainable health and long-term care policy

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4. Towards a sustainable health and long-term care policy

The demographic changes expected in Korea over the next few decades will present major challenges for the financing and provision of health and long-term care services in Korea. The ageing of the population will greatly increase the numbers of elderly people in the population, and this will put strong upward pressure on health and long-term care expenditure in future. Meanwhile, if the role of informal family support networks continues to weaken, see above, there will be further demand to substitute formal (paid) for informal (unpaid) care of elderly dependent people. At the same time, the decline in fertility, by reducing the working population in the next few decades, will make it harder to provide the real and financial resources to pay for the required extra health and long-term care expenditure. These challenges are well recognised in Korea and the process of adopting suitable policies to meet these challenges has begun. However, the scale of the challenges is such that further reform is required.

Fortunately, the picture is not all gloomy. If the life-expectancy continues to increase and age-specific morbidity falls, there will be a postponement of dependency and increasing numbers of healthy, older adults to share the burden of providing informal care in Korea. Also, past and anticipated economic growth will expand the resources available for financing additional health and long-term care although it will also expand the demand for care. Finally, technological change is likely to continue to improve the quality and effectiveness of health services - and perhaps, to a lesser extent, of long-term care services - although it may also add to costs.

The next section presents OECD projections of health and long term care expenditures in Korea and other OECD countries to 2050. The sections which follow consider what Korea is doing and might do in future to adapt its health and long-term care policies to the demographic and expenditure challenges drawing, where possible, on experience from other OECD countries with policy issues including: influencing fertility, promoting healthy ageing, endure adequate financing for the growth of health and long term care expenditure; how to extend the capacity of health and long term care services, and how to contain costs.

4.1. Projections of health and long term care spending

The OECD has recently developed a set of projections of publicly-funded health and long term care expenditure to 2050 in Korea and the other OECD (Oliveira Martins *et al*, 2006).[9] These projections offer a number of alternative scenarios for future public spending because different assumptions can be made about the likely demographic and non-demographic drivers of costs. They provide indicators of where the main spending pressures may arise in OECD countries in general and in Korea in particular and they provide pointers to where policy responses might be most needed.

4.1.1. Projections of public health care spending

In the case of health care spending, the calculations for the **demographic** drivers are based on the well-known

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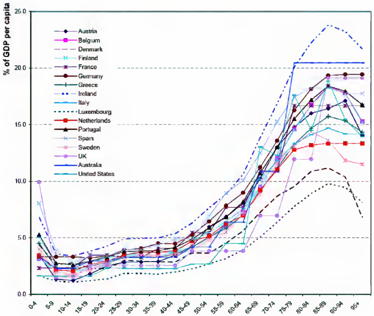
[9] The OECD projections cover health and long term care spending separately. In each case they distinguish between the expected demographic drivers of future spending and the expected non-demographic drivers, such as income, technology changes and relative price increases.

Chart 4.1: Health care expenditure increases with age [1]

Public health-care expenditure by age groups



1. Expenditure per capita in each group divided GDP per capita
Source: Oliveira Martins *et al.* (2006)

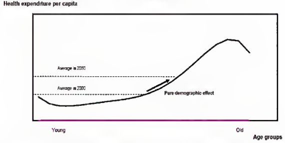
tendency for health expenditure per capita to increase with age (Chart 4.1), which arises partly from the high costs of health care in the year or two preceding death, and the projected increase in the numbers of elderly people. Allowance has to be made for the fact that medical interventions per capita decline again somewhat for the very elderly despite the approach of death (Chart 4.1).

If life expectancy is increasing, the higher costs associated with death will be postponed. The survivors may be sick during their extra years of life (expansion of morbidity), they may become healthier during these extra years (compression of morbidity) or they may simply experience postponement of morbidity in step with the gains in life expectancy (dynamic equilibrium). The third of these possibilities is adopted as the central assumption in the OECD projections - that is to say, it is assumed that longevity gains will be translated one-to-one into years in good health. These assumptions are captured in Chart 4.2 which distinguishes between 3 possible effects on the age-expenditure profile: (1) a pure ageing effect, (2) the postponement of death-related costs and ill health preceding death (dynamic equilibrium), and (3) non-demographic drivers.

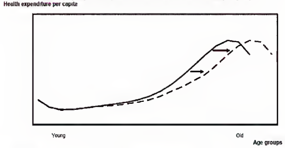
The **non-demographic** drivers of health care spending are assumed to include income (or GDP) growth and an

Chart 4.2: Shifts in expenditure profiles, ageing and non-ageing effect

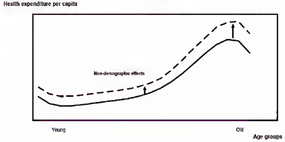
(1) Pure ageing effect



(2) Ageing affect adjusted for death-related costs and healthy longevity



(3) Non-ageing drivers



Source: Oliveira Martins *et al.* (2006)

extra, cost-increasing, residual effect which will result from the cost of implementing technological advances in medical care and likely adverse relative price changes. In the case of income growth, it is assumed that the future income elasticity of health spending will be 1 at the national level. In the case of the residual effect, three main alternative assumptions are used in the projections.

- A so-called 'cost pressure scenario' involves that in all OECD countries, cost pressures over and above the income effect will continue to drive health expenditure at the average OECD historical rate (1% per annum) until 2050.

- A so-called 'cost containment scenario' is that these extra cost pressures will gradually be brought under control, and be reduced to zero by 2050 in all countries.

- A third assumption postulates that each country will continue to experience until 2050 its own 'country-specific' residual effect in the past two decades, which in the case of Korea has been 2.4% per annum.

Estimates of the impact of the main drivers of expenditure on the growth of public health spending in the past two decades are shown in Table 4.1. Publicly-funded health spending grew at an average rate of 3.6% per annum in the OECD as a whole but at 10.1% per annum in Korea. The demographic (ageing) effects were relatively small at 0.3% for the OECD as a whole and at 1.4% in Korea. The income effects were 2.3% for the OECD as a whole

Table 4.1: Decomposing growth in public health spending[1], 1981-2002[2]

	Health Spending	Age effect	Income effect[3]	Residual
Australia (1970-2001)	4.0	0.5	1.7	1.7
Austria	4.2	0.2	2.5	1.5
Belgium (195-2002)	2.9	0.4	2.2	0.6
Canada	3.1	0.6	2.1	0.4
Czech Republic (193-2002)	2.7	0.4	2.8	-0.4
Denmark (1971-2002)	1.9	0.2	1.6	0.1
Finland	3.4	0.6	2.4	0.5
France	3.9	0.3	1.9	1.6
Germany	3.7	0.3	1.6	1.9
Greece (1987-2002)	3.4	0.4	2.1	0.8
Hungary (1991-2002)	1.5	0.3	2.8	-1.5
Iceland	6.1	0.1	2.7	3.2
Ireland	5.3	0.0	4.4	0.9
Italy (1988-2001)	2.1	0.7	2.2	-0.1
Japan (1970-2001)	4.9	0.6	2.6	1.8
Korea (1982-2002)	10.1	4.4	6.0	2.4
Luxembourg (1975-2002)	4.2	0.0	3.3	0.7
Mexico (1990-2002)	4.5	0.7	1.7	2.4
Netherlands (1972-2002)	3.3	0.4	2.0	0.9
New Zealand	2.9	0.2	1.2	1.4
Norway	5.4	0.1	3.0	2.2
Poland (1990-2002)	3.1	0.5	3.2	-0.6
Portugal	8.0	0.5	2.9	4.4
Slovak Republic (1997-2002)	2.1	0.5	4.2	-1.5
Spain	5.4	0.4	2.4	2.5
Sweden	2.5	0.3	1.6	0.7
Switzerland (1985-2002)	3.8	0.2	0.9	2.9
Turkey (1984-2002)	11.6	0.3	2.1	8.3
United Kingdom	3.8	0.1	2.1	1.5
United States	5.1	0.3	2.1	2.7
Average	*4.3*	*0.4*	*2.5*	*1.5*

1. Total Public health spending per capita
2. Or the longest overlapping period available.
3. Assuming an income elasticity of health expenditure equal to 1.

Source: Oliveira Martins *et al.* (2006)

Table 4.2. Alternative projections of public health care expenditure, 2050

Health expenditure as a % GDP

	OECD average	Korea
Baseline public health care percentage of GDP, 2005	5.7	3.0
Demographic effect, 2050	+0.7	+1.6
Non-demographic effect under cost pressure, 2050	+3.2	+3.2
Non-demographic effect under cost containment, 2050	+1.4	+1.4
Non-demographic effect under country-specific residual, 2050	+1.2	+4.0
Level of GDP share under demographic effect only, 2050	6.3	4.6
Level of GDP share under demographic effect and cost pressure, 2050	9.6	7.8
Level of GDP share under demographic effect and cost containment, 2050	7.7	6.0
Level of GDP share under demographic effect and country-specific residual, 2050	7.5	8.6

Source. Oliveira Martins *et al.* (2006)

and 6.1% in Korea (the highest in the OECD area, as a result of Korea's very high economic growth rate in the 1980s and 1990s). Both the size of the ageing effect in the past two decades and the variation among the residuals between countries has been small. The latter is partly due to the fact that some countries (such as Korea) have been substituting public for private health care spending in recent decades. However, differential cost-containment polices are likely, also, to have played an important part in causing variation among the residual growth rates.

Looking to the future, Table 4.2 shows the results of the main projections and the country-residual variant for Korea and the OECD as a whole. The figures refer to health expenditure shares of GDP in 2005 (the baseline year) and in 2050, breaking down the effects of different drivers for the projections in 2050. There are three points that could be made about these projections of health-care spending.

1. All of them suggest the public burden of health care spending will increase significantly by 2050 but the increases in Korea, by doubling or more than doubling the GDP share, will greatly exceed the increases in the OECD as a whole, where the increase in the GDP share will be between about 30% and 70%.

2. The demographic effects are not going to be the largest influences on spending either in the OECD in general or in Korea, except under the cost-containment scenario for Korea, when the demographic and non-demographic effects will be similar to one another.

3. The suggestion that the non-demographic effects will dominate both under the cost-pressure and country-specific residual scenarios in Korea may have important implications for future cost-containment policies in Korea.[10]

4.1.2. Projections of public long-term care spending

In the case of long-term care spending, the calculations for the **demographic** drivers are based somewhat similarly - on the tendency for long-term care expenditure to increase monotonically with age, especially with very old age,

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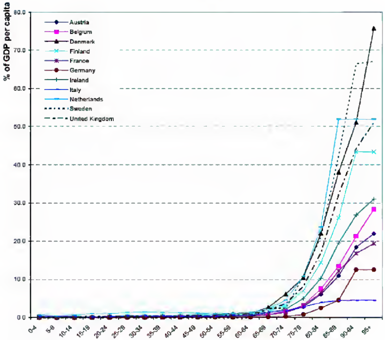
[10] It could be argued that adopting the country-residual scenario for Korea is implausible because its size has been inflated by a once-and-for-all substitution of public for private spending on health. However, since public spending as a proportion of total spending on health care in Korea, at about 50%, is well below the OECD average at 72%, there may be further room for substituting public for private health care in Korea.

Chart 4.3: Long-term care expenditures are highest for the very old[1]

Public long-term care expenditures by age group



1. Expenditure per capita in each age group divided by GDP per capita.
Source: Oliveira Martins *et al.* (2006).

and the projected increase in the numbers of elderly and very elderly people (Chart 4.3).

There is a great deal of uncertainty as to how disability and dependency among the elderly are changing over time as life expectancy increases in different countries. For the central projection it is assumed *arbitrarily* that only *half* of the expected longevity gains are translated into reduction of dependency.

The **non-demographic** drivers of long-term care spending are assumed to include income growth, adverse relative price changes (due to the expected growth in the real wages of care workers which is unlikely to be countered by productivity gains), and changes in the shares of formal and informal (unpaid) care. On the last issue, the evidence suggests that the level of informal (unpaid) care is associated negatively with the participation rate among the population aged 50-64. Korea seems to be a middling country in terms of this participation rate (OECD, 2005h).

For the projections of the effect of the non-demographic drivers, it is assumed that the income elasticity will

Table 4.3: Alternative projections of public long-term care expenditure, 2050
Public long-term care expenditure as a percentage of GDP

	OECD average	Korea
Baseline public long-term care expenditure share of GDP, 2005	1.1	0.3
Demographic effect, 2050	+1.2	+3.8
Non-demographic effect under cost pressure	+1.0	+0.0
Non-demographic effect under cost containment	+0.0	-1.0
Non-demographic effect under increased participation of people aged 50-64	+1.7	+1.1
Level of GDP share under demographic effect	2.3	4.1
Level of GDP share under demographic effect and cost pressure	3.3	4.1
Level of GDP share under demographic effect and cost containment	2.4	3.1
Level of GDP share under increased participation of people aged 50-64	3.9	5.1

Source: Oliveira Martins *et al.* (2006)

be zero, the adverse relative-cost effect will be 0.5 of the expected change in labour productivity in the economy (or 1.0 in the cost pressure scenario), and the informal care effect would increase the cost per dependent person by about 4% of the expected change in the participation rate for people 50-64.

Looking ahead, Table 4.3 presents the results of the main projections public long-term care spending for Korea and the OECD, which, again, lead to three main observations:

1. The projections suggest that the public burden of long-term care spending will increase proportionately even more than the public burden of health spending by 2050, albeit from a low base. Again the proportional increases in Korea, at between ten-fold and seventeen-fold will greatly exceed those in the OECD as a whole at between two-fold and 3.5-fold.

2. The demographic effects are considerably larger than the non-demographic effects except in the case of the scenario concerned with an assumed increase in the participation rate among people aged 50-65 in the OECD in general, when the extra cost of formal long-term care at 1.7% of GDP would exceed the estimated demographic effect at 1.2% of GDP in 2050.

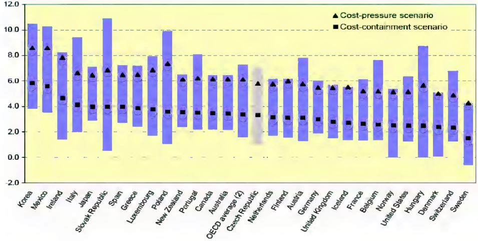
3. The small (or negative) non-demographic effects in Korea are due to assumptions about containing wage growth among care workers and increasing numbers and reducing participation rates in the age group 50-64, which would offer an increase in informal, unpaid care. However, there may be counter-effects. The dwindling working population could put upward pressure on wage and participation rates.

4.1.3. Projections of total expenditure on health and long-term care

Under the respective so-called 'cost-pressure scenarios' combined total public expenditure on health and long-term care would more than treble from 3.3% to almost 12% of GDP in Korea in 2050. Under the respective so-called 'cost-containment' scenarios, combined total public expenditure on health and long-term would increase by a factor of about 2.75 to around 9% of GDP in Korea in 2050. These are the fastest projected increases in public health and long-term care spending among OECD countries, both under the 'cost-pressure' and 'cost-containment' scenarios (Chart 4.4).

Chart 4.4: Projected total increase in health and long-term care spending, 2005-2050

In percentage points of GDP



Source: Oliveira Martins *et al* (2006)

Currently, about half of health spending in Korea is financed publicly, while most of the spending on long term care is private. Public spending on long term care is restricted to patients who are eligible for social assistance. If the current shares of private and public expenditure on health and long term care were to be maintained, it may be anticipated that *total* public and private spending on health and long term care in Korea in 2050 could exceed 24% of GDP under a 'cost pressure' scenario and 18% of GDP under a 'cost containment' scenario.

4.2. Health and long-term care policies: responses to ageing and low fertility trends

The following sections consider what Korea is doing and might do in future to adapt its health and long-term care policies to the demographic and expenditure challenges referred to above, drawing, where possible, on experience from other OECD countries. Consideration is given first to policies which might lessen the underlying demographic pressures - by encouraging higher fertility and preventing ill health. Given that demographic pressures will nevertheless remain, attention is then given to policies on financing additional services, expanding capacity and containing costs.

4.2.1. Encouraging higher fertility

Now that Korea's fertility rate has fallen to the lowest level in the OECD (less than 1.2 children per woman in 2004) at a time when the burden of old-age dependency is set to increase, it is desirable for government policy to encourage higher fertility. This will not be easy. The fertility rate is likely to be exogenous to some extent. Furthermore, many of the policies which can be developed to encourage fertility lie outside the health sector. However, the health sector can play a supporting role in changing the financial incentives for couples to have children. For example, public health insurance cover can be increased to 100% for antenatal, maternity and child health care and for assisted reproduction technology (ART). The Korean government has already brought in such measures as part of plans to encourage fertility (Box 2.1)

Work in other OECD countries supports the rationality of such policies Grant *et al.* (2006) has suggested that expanding ART in the UK at public cost would not only be effective in raising the birth rate but would do so more cost-effectively than certain other policies to achieve the same end, such as raising child benefits by 25%. The current contribution of ART to the total fertility rate in the UK is 0.02 whereas in Denmark it is 0.07. If the number of ART cycles per million women in the UK were raised to the Danish level, the total contribution of ART to the British fertility rate would be 0.06 Another study in the UK has suggested that whereas it costs about USD 24 000 to create a baby by IVF, while each child contributes USD 275 000 to the economy over its lifetime. This study estimated that if each couple experiencing fertility problems in the UK were offered 3 cycles of fertility treatment at public cost, an extra 10,000 babies would be born in 2-3 years (The Guardian, 2006).

4.2.2. Preventing ill-health

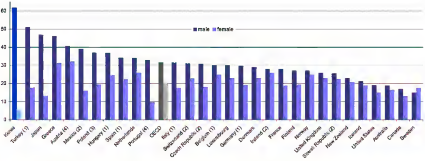
The OECD expenditure projections, set out above, suggest that there is great potential for the prevention of ill health and dependency to reduce the need for public spending on health and long term care services. The 'cost-pressure' and 'cost-containment' scenarios for health and long-term care spending assume that there will be a rise in the expectation of life in Korea by 1.7% per decade up to 2050, an equivalent rise in the age of onset of morbidity among older people, and a postponement in the prevalence of dependency equivalent to *half* of the longevity gains Sensitivity analysis of these projections suggests that if there were 'compression' (postponement) of morbidity and dependency - in particular, if the prevalence of morbidity were to be shifted forward 2 years for each 1 year gain in longevity and the prevalence of dependency were to be shifted forward by 1 year each decade - health expenditure would fall by 1.2% of GDP and long term care expenditure would fall by 0 8% of GDP by 2050 compared with the respective cost containment scenarios. Conversely, if there were 'expansion' of morbidity and dependency - in particular, if morbidity and dependency were not postponed at all between 2000 and 2050 in Korea - public health-care expenditure would rise by an additional 1 3% of GDP and public long-term care expenditure by 0 8% of GDP, compared with the respective cost-containment scenarios

These projections indicate how important it will be for there to be compression rather than expansion of morbidity and dependency in Korea over the next few decades. One of the main ways to improve health further in Korea is to discourage risky health behaviour among the Korean people and to encourage continued adherence to traditional lifestyles where these are now healthy. For example, in relation to risky behaviour, Chart 4 5 shows that Korean men have the highest rate of smoking reported in the OECD (62% of men smoking daily) whereas Korean women have the lowest rate reported in the OECD (about 5% of women smoking daily). Women and children are likely to be affected adversely by passive smoking caused by men.

Other OECD countries which formerly had high rates of smoking have shown that smoking rates can be brought down to below 20% in men The justification for government intervention is that smokers will place a heavy burden

Chart 4.5: Across the OECD area Korean women smoke the least, while Korean men are notorious for smoking

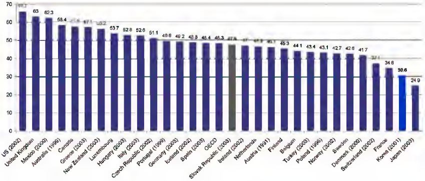
Percentage of males and females smoking daily, 2004



Source: OECD Health Data 2006, June 2006

Chart 4 6: Obesity is uncommon in Korea

Percentage of adult population with Body Mass Index over 25 (overweight and obese population), 2004 or latest year



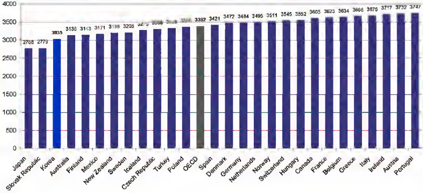
Source: OECD Health Data 2006, June 2006

on public health and long term care expenditure as a result of smoking-related diseases. There is a good understanding among public health experts and policy makers about which are the most effective and cost effective measures for discouraging smoking. They include: price increases through higher taxes; advertising and promotional bans, smoking restrictions, consumer education campaigns, and smoking cessation therapies (WHO, 2003). Most countries adopt a mix of these policies and a number of them, including Korea, earmark tobacco taxes to help fund public spending on health care. However, most find that it is easier to encourage people with higher income and educational status to quit smoking than people with lower income and educational status.

Another threat to health and longevity in most OECD countries is rising rates of overweight and obesity which increase the risk of Type 2 diabetes, heart disease, hypertension, some cancers, musculoskeletal disease, some mental illness, and other chronic illnesses. In the case of the United States, it has even been suggested that the steady rise in life expectancy may soon come to an end because of rising obesity (Olshansky, *et al*, 2005). The percentage of the total Korean population which is overweight (with body mass index (BMI) between 25 and 30) or obese (with BMI over 30) is currently among the lowest in the OECD, at about 30% (Chart 4.6). However, there is no room for complacency. There is a steeply rising trend in overweight and obesity in Korea, as in other OECD countries. The overweight and obese rate in Korea more than doubled between 1995 and 2001 (Kim, *et al*, 2005). The average

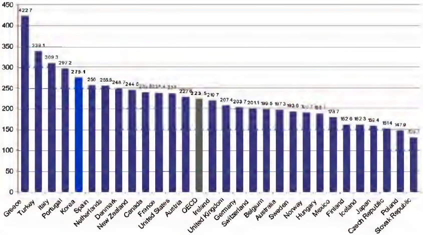
Chart 4.7: Koreans are on a healthy diet

Panel A, Total calorie consumption, 2004



Source: OECD Health Data 2006, June 2006

Panel B: Consumption of fruits and vegetables - kilos per capita 2003



Source: OECD Health Data 2006, June 2006

BMI among 17-year-old, female adolescents increased from about 20.8 in 1969 to about 21.4 in 1993 and from about 20.5 to about 21.4 among male adolescents over the same period.

The Korean diet appears to be among the healthiest in the OECD area as it involves limited consumption of total calories per day (Chart 4.7, Panel A) and high consumption of fruit and vegetables (Chart 4.7, Panel B), the latter similar to the high levels in Mediterranean countries.

However, Koreans are showing signs of switching towards a Western-style diet with reduced consumption of cereals, increased consumption of fats and animal products, and increased eating out rather than in the home (Lee and Sobal, 2003). Also, it can be inferred that physical activity has probably been decreasing among Koreans, with a reduction in employment involving manual labour and rising car ownership.

Retention of the key healthy characteristics of the Korean diet and maintenance or raising of physical activity levels, especially among children and the elderly, is likely to be necessary if the trend towards overweight and obesity is to be halted and morbidity and dependency are to be prevented from increasing in Korea.

Few if any OECD countries have yet found successful policies for reversing the upward trend in the proportion of overweight and obese people in their populations, particularly among children. However, it has been reported from Australia recently that a 3-year project ('Be Active, Eat Well') of concerted action to bring down obesity among school children in one town in the State of Victoria has been very successful (Lagan, 2006). Also, Singapore (not a member of the OECD) appears to have had some success with its 'Trim and Fit' programme for school children. The programme requires overweight children to participate in special physical exercise programmes and to follow a calorie-controlled diet during school hours. Nutrition education is integrated into the formal school curriculum (Toh *et al*, 2002). As a result of the implementation of the 'Trim and Fit' programme, the prevalence of obesity among primary and secondary school children in Singapore declined from about 13% in 1994 to about 10% in 2001.

4.3. Financing additional health and long term care expenditure

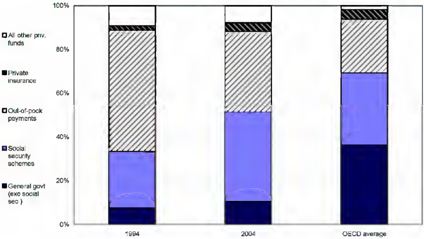
Although there will be opportunities to moderate the demographic and non-demographic trends which will add to the pressure for higher spending on health and long-term care services in Korea in the next few decades, significant additional spending on these services is inescapable, according to the OECD's projections. How can the large increases in the health and long term care shares of GDP projected for Korea in 2050 be financed?

4.3.1. Financing health services

In the case of health services, Korea already has what might be described as a well-developed public system for financing health care, in that the whole population has been covered by National Health Insurance (NHI) since 1989. However, although NHI coverage is wide it cannot yet be described as deep compared to most other OECD countries (OECD, 2006e): only a little over half of medical care expenses are covered by public funds. The rest

Chart 4.8 The share of private health financing is relatively high in Korea

Sources of finance for health expenditure, Korea 1994 and 2004 and OECD average, 2004



Source: OECD Health Data 2006, June 2006

has to be paid for by patients, mainly in the form of out-of-pocket payments - which cover nearly 40% of health expenditure. This contrasts with the average position among OECD countries, where about 70% of medical care expenses are paid by public funds and out-of-pocket payments cover about 20% of health expenditure (Chart 4.8). There has been a considerable increase in the public share of health spending in Korea since 1994 and in this respect Korea's health care financing has been converging with the OECD average.[11]

At first glance, it might seem that there should be little problem in financing public health-care expenditure shares of GDP between 6% and 9% in Korea in 2050 (see projections above). Already, countries like France, Germany and Japan, which like Korea rely significantly on National Health Insurance, support public health-care expenditure shares of GDP between 6% and 8%. True, these three countries have standards of living about 50% above that of Korea, currently. However, Korea's standard of living will have increased by about 50% by 2025 and will have more than doubled by 2050 assuming that Korea enjoys a (historically) modest 2% per annum economic growth rate between now and 2050. It is quite normal for countries to increase their health expenditure share of GDP as national income rises.

However, France, Germany and Japan have more than 3 persons of working age per elderly person, currently. Korea is expected to have only about 1.4 persons of working age per elderly person by 2050. Although the average standard of living is likely to be much higher than now, intergenerational equity in funding health care will be a major issue for the future in Korea The challenge will become even greater if there is further substitution of public for private funding of the health system.

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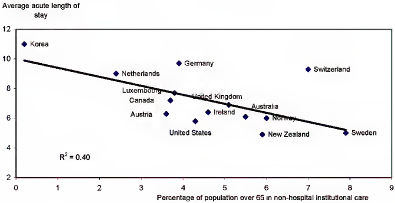
[11] The Korean government has introduced further extensions to NHI cover recently, including extensions for certain major diseases, some additional diagnostic procedures, and some 'hotel' services (such as meals) in hospitals. In addition, for the first time, the government has introduced catastrophic cover into the NHI scheme. Half of the co-payments for bills exceeding USD 1,200 in a 30-day period are now covered. There is now a ceiling on co-payments over USD 3,000 in a 6-month period.

In these circumstances it may be necessary to look at options for reducing the potential tax and contribution burden on the working population for example, by maintaining, rather than further reducing, current levels of cost sharing (except where that might contribute to discouraging higher fertility) and by requiring elderly people to pay NHI contributions Elderly people do not currently pay any contributions to NHI if they have working children They are covered as dependents. That may be have been an appropriate arrangement when workers greatly outnumbered the elderly, the expectation of life at age 65 was short, family support was the norm and elderly poverty was common However, introducing NHI contributions by the elderly with working children may be necessary as the working population dwindles, the expectation of life at age 65 lengthens, family support weakens and the elderly - or many of them - become more affluent as a result of the maturing of the pension system and private savings.

4.3.2. Financing long-term care services

Korea does not yet have a well developed system for public funding of long-term care. Most elderly people who need support with activities of daily living (such as bathing, feeding, moving around and using the toilet) are cared for informally in families Only about 25% of elderly live alone, although the proportion has been increasing Both home care and institutional care are provided on a limited basis and public funding under the 'Older Persons Welfare Act' is restricted to relatively poorer elderly people and funded out of general taxation. It is provided free to elderly people who are on social assistance benefits and on a subsidised basis to elderly people on the margins of the social assistance level Those with higher incomes have to meet the total cost (OECD, 2005h).

Chart 4.9: Average length of stay in acute hospital and percentage of population over 65 receiving care in a non-hospital institution.



Source.
Source OECD (2005), Long-term Care for Older People, and OECD (2006), OECD Health Data 2006, June 2006

If these arrangements were maintained in future, it is likely that there would be growing unmet need for long-term care. It is also likely that there would be growing pressure on the health care system to care for elderly people in general hospitals. There is already evidence that the comparative lack of long-term care in Korea is leading to 'social admissions' to, and inappropriately high lengths of stay in, acute hospitals (Chart 4.9). Whereas the number of acute care hospital beds has been reduced in most OECD countries, it has been growing rapidly during the past decade in Korea and had reached 5.9 per 1 000 population in 2003 (latest year available), higher than the OECD average of 4.1. Research suggests that at least 14% of inpatient cases are inappropriate to acute care hospitals (Kwon, 2006a). An acute hospital is likely to be a high cost place in which to care for an elderly person who needs nursing support rather than acute medical care.

The development of home-care services for elderly, dependent people would seem to be particularly desirable in Korea. In most OECD countries there has been a relative shift in long-term care services away from the long-stay institutions which had originally replaced much informal care towards home-care. That is because many elderly people prefer to remain in their own homes when they become dependent. Also, home care can enable informal carers to continue to play a role in care, especially when such carers are themselves supported by formal carers and/or cash benefits.

Consideration is now being given by the Korean government to the introduction of a new social insurance scheme for long-term care of the elderly by 2008 to be funded mainly by contributions but with tax subsidies for the poor and an element of co-payments (Kwon, 2006b). It would be administered alongside the existing NHI scheme. Detailed decisions on design and implementation have not yet been announced and pilot studies are being implemented in several regions of the country.

The OECD projections of long-term care spending in Korea, outlined above, would take the public long-term care expenditure share of GDP in 2050 to between 3.1% and 4.1% under the respective 'cost containment' and 'cost pressure' scenarios. These figures are not very far above the share of GDP devoted recently to public expenditure on long-term care in Sweden (2.74% in 2000), the highest share identified in the OECD study on Long-term Care for Older People (OECD, 2005h). However, Sweden had more than 3 persons of working age to each elderly person in 2000.

Funding a social insurance scheme for long-term care in Korea on a pay-as-you-go basis would be supportable in the near future because there are currently more than 5 workers per elderly person in the population. However, by 2050, when it is anticipated that there will be only 1.4 workers per elderly person, the burden of paying for health and long-term care could be unsupportable if it all fell on the working population, despite the prospects for economic growth. It seems necessary to try to design the utmost economy into any new long-term care insurance scheme in Korea, to continue to promote informal care and to consider ways in which the elderly themselves can contribute to the cost.

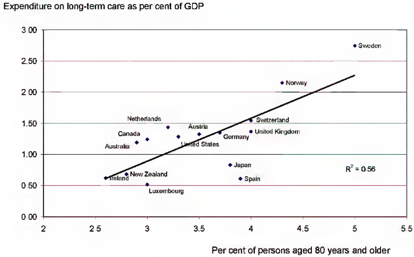
The OECD has reviewed long-term care programmes for older people across 19 OECD countries, including Korea, recently (OECD, 2005h). The OECD found a wide variety of arrangements for funding and providing long-term care for the elderly. The main private funding sources are informal care (in kind), out-of pocket payments, and private health insurance (PHI). The main public ones are general taxation and social insurance. About half of the 19 OECD countries in the study had tax funded public programmes for long-term care and about half had social insurance funded public programmes.

Not surprisingly, there is evidence that current long term care spending is correlated across countries with the percent of people aged 80 and over in the population (Chart 4.10). However, there are large variations around a regression line fitted to the relevant data, which suggests that there are factors apart from numbers of very elderly people which affect expenditure on long-term car.

Some of the critical issues, apart from the numbers of aged persons, which are likely to affect the cost of public schemes for long-term care of the elderly are:

- the size of the role played by informal care,
- the eligibility criteria for benefits and the level of benefits,
- whether there is means testing for receipt of benefits or whether benefits are universal,

Chart 4.10: the correlation between total long-term care spending and the population share of the very elderly, 2000.



Source: OECD (2005), Long-term Care for Older People.

- the scale of cost sharing by the person requiring care or the family;
- whether benefits are fixed or cost-related;
- the location of the boundaries between health care and long-term care; and
- the relative roles of home-based care and institutional care

Maximising the role of informal care should be a major objective in the design of the proposed social insurance scheme for long term care. Making home care the easiest choice will help to promote that objective. Also, it is desirable to develop ways of supporting informal carers which can be done by various means including providing formal home care in such a way that it supports informal carers, making monetary compensation available to enable carers with jobs to work part time or give up their employment (if maintenance of household income requires it) and providing short term respite care, say in nursing homes. Rising expectation of life and improvements in health will increase the numbers of elderly (such as spouses) who can provide informal care, as well as increasing the numbers who require care. Unfortunately, there may often be a trade-off between encouraging spouses or children to provide informal care and encouraging them to remain in the workforce.

An important question for the proposed social insurance scheme for long-term care in Korea, is whether it will be means tested - that is whether the benefits will be made available only to people who have incomes below a certain threshold (Wittenberg *et al*, 2002). Clearly, means testing will lead to lower public costs, other things being equal, although, in the case of people needing long-term care who are above the income threshold, it will perpetuate the perverse incentive for them to remain in hospital. Many OECD countries with tax-funded long term care (including Korea, currently) apply means tests for public funding of care but, for the most part, OECD countries with social insurance schemes provide benefits on a universal, non-means tested basis. However, Israel (which is not a member of the OECD) applies a means test to long term care benefits under its social insurance scheme. Under the Israeli scheme, benefits are provided only after the recipient has passed both a needs test and an income test. Subject to eligibility on grounds of need, full benefits are provided for single people with incomes below the average wage, couples with incomes below 1.5 times the average wage; and, for people with children with incomes below the above ceilings together with an additional income equivalent to half the average wage for each child. No benefit is paid if the income is above 1.5 times the average wage for a single person, above 2.25 times the average wage for a couple, and for those with children, above these ceilings together with and an additional sum of 0.75 the average wage for each child. Between these limits, half the benefits are paid (National Insurance Institute of Israel, 2006).

If means testing is deemed not to be appropriate for the proposed long-term care insurance programme in Korea, consideration should be given to requiring a high level of cost sharing, subject to catastrophic limits. Another, mixed, option would be to make coverage for home care universal but to apply a means test for institutional care. That would save public costs compared with a fully universal scheme. It would also give desirable incentives for dependent people with higher incomes to demand home care and would continue to promote the supply of informal care.

Another important question is whether elderly people will make contributions to long-term care insurance. The OECD review indicated that new long-term care insurance has been introduced in four OECD countries recently: Austria, Germany, Japan and Luxembourg. In all cases the elderly themselves make contributions to these new schemes (OECD, 2005h). As the pension system matures and private savings accumulate, it should be more feasible for many elderly people in Korea to pay contributions to a long-term care insurance scheme. Premiums for the elderly poor could be subsidised by the government.

4.4. Extending capacity

The OECD health expenditure projections mentioned above suggest that it will be necessary to expand capacity in the health and long term care sectors in Korea under a variety of assumptions about the behaviour of the drivers of health spending. For example, there are only 54 long-term care hospitals and 171 nursing and residential or nursing home facilities in Korea currently (Kwon, 2006a). The Korean government is already considering to expand the capacity for providing appropriate long-term care services (Kim, 2005).

Investment in human resources - particularly in doctors, nurses and care workers - will be critical. The number of doctors per 1000 population in Korea was 1.6 in 2004, the second lowest among OECD countries after Turkey and well below the OECD average of 3.0. However, the number of doctors has increased rapidly over the past two decades. The number of nurses per capita in Korea remains much lower than in most other OECD countries (1.8 in 2004, compared to an OECD average of 8.3). But the number of nurses per capita has increased in Korea in the past decade, up from 1.1 in 1994.

The ageing of the health workforce in the period 2005-2050 will itself pose a challenge since there will be a bulge in retirements to match the bulge in recruitment over the past two decades. It will be desirable to encourage health workers to delay their retirement for a few years, as with the workforce in general, as the working population declines. Another option would be to encourage immigration of health and long-term care workers. In any case, it may be necessary to improve the pay and conditions of health workers as the working population dwindles, to attract and retain sufficient numbers of workers to meet the additional needs for health and long-term care.

4.5. Containing costs

Containing costs is likely to be a critical issue over the next few decades, given the large size of the projected increases in health and long-term care spending in Korea, outlined above, and the intergenerational issues that will arise in financing such extra spending. The difference between the so-called 'cost-pressure' and 'cost-containment' scenarios for total health and long-term care spending in the projections is almost 3 percentage points of GDP by 2050.

The OECD Review of the Korean Health System (OECD, 2003d) evaluated recent cost containment policies and made some recommendations for the future. The study pointed out that although health expenditure had grown rapidly in Korea for the previous decade and a half, per capita health expenditure in 1999 was still below the level that would be expected for a country with Korea's then standard of living, judged by comparisons with other OECD countries. It seems that Korea's high level of cost sharing for health care acted as a strong cost-containment device in the early years of the NHI programme, by making consumers very cost conscious.

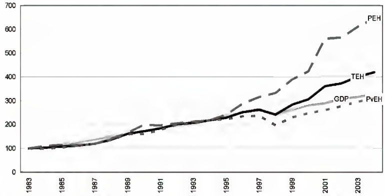
The OECD Review was more critical of other cost containment mechanisms in Korea, suggesting, for example, that fee-for-service payment of providers and the lack of gate-keeping led to incentives for over-provision of services on the supply side. Among other things, the OECD recommended that the NHI Corporation should become a more active and effective buyer of health services on behalf of the insured and should pursue a policy of provider-payment reform by introducing mixed and hybrid methods of payment of providers in place of fee-for-service.

These recommendations seem to have become even more relevant in the last few years. The responsibility for cost-containment on the demand side is passing increasingly to the NHI Corporation. Chart 4.11 shows that public expenditure on health (PEH) has been growing more rapidly than private spending on health (PvEH). This has been due partly to the extensions in public coverage and the diminished role for patient cost sharing, noted above. The improvements in coverage were desirable on equity grounds but they may well have undermined cost-consciousness among the insured.

Moreover, it seems likely that the Corporation will be given the responsibility for managing the proposed, new,

Chart 4.11: Public health expenditrure has been outpacing GDP-growth in recent years

Health Spending and GDP growth, Korea, 1983-2004



Abbreviations. PEH - public health expenditure, THE - total health expenditure, PvEH - private health expenditure, GDP - Gross Domestic product. All items measured per capita in 2000 constant price

Source: OECD Health Data 2006, June 2006 long-term care insurance scheme. Kwon (2006a) has written recently, "Effective implementation of the long-term care system and its long-term financial viability hinges also on fee-setting or the design of payment systems to long-term care providers. The majority of the providers of long-term care to the elderly are likely to be private and contracting and regulation of them will be one of the key issues in long-term care as in health care"

4.6. Conclusions

The ageing of the Korean population over the next few decades, together with technological change and relative cost changes, will put strong upward pressure on health and long-term care expenditure, according to OECD projections. The projected increases in spending to 2050 are larger than for any other OECD country. At the same time, the decline in fertility will reduce the working population in the next few decades. As a consequence, Korea faces the sharpest deterioration in the elderly dependency ratio among OECD countries by 2050 and will share with only three other countries - Italy, Japan and Spain - the challenge of having fewer than 1.5 people in the working age population per elderly person by 2050. There is likely to be growing intergenerational tension in providing the real and financial resources to pay for the required extra spending on the elderly.

A number of key choices will have to be made in funding and providing extra health and long term care services as the population ages. What should be the role for individual and family responsibility in funding care and what should be the role for collective action? How should the cost of extra care be shared across the generations? To what extent should the younger elderly be encouraged to continue to participate in the working population and to what extent should they be encouraged to care for elderly spouses and relatives when such difficult choices have to be made in families?

These challenges and looming choices are well recognised in Korea and the process of adopting suitable policies to meet them has begun. However, the scale of the challenges is such that further adaptations are likely to be required. Suggestions about further ways to meet these challenges drawing on experience from other OECD countries include:

- The promotion of healthy ageing can help to reduce morbidity and delay the onset of the kind of dependence that precipitates the need for long-term care. For example, more should be done to reduce the high rate of smoking among men in Korea and to maintain a good diet and a high rate of physical activity in the population, including the elderly population.

- The provision of suitable long term care services would reduce unnecessary use of costly hospital services.

- The elderly population themselves should be expected to contribute to the rising costs of health and long-term care as pensions grow and their savings accumulate. They should be expected to make contributions to the relevant insurance schemes and to continue to make co-payments, subject to assistance for the poor.

- It is important to maintain as far as possible the contribution of family and informal carers to the care of the elderly. Care at home should be promoted and use should be made of monetary payments to informal carers, when appropriate, and of respite care for the dependent elderly.

- Consideration should be given to means testing of any long-term care benefits in the interests of achieving the financial sustainability of a long-term care insurance scheme.

- Cost-containment mechanisms will need strengthening in health and long term care, especially if the role of patient cost-sharing is to be reduced further. The NHI and Long-term care Institution should pursue active purchasing and make further reforms to the payment systems for providers in the interests of cost containment.

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Facing the Future:
Korea's Family, Pension and Health Policy Challenges

Korea faces an extraordinary ageing challenge. Korea will age much faster than other OECD countries: in 2000, about 7% of Korea's population were over 65; in 2050, senior citizens will constitute about 37% of Korea's population. Population ageing will unfold at high speed, firstly because of the dramatic increase in life expectancy from just over 52 years in 1960 to over 77 years in 2004, a major cause of this was the spectacular decrease in infant mortality rates from 45 infants per 1000 live births in 1970 to 5.3 in 2002. The second cause of population ageing is the sharp decline in birth rates from close to 3 children per woman in 1975 to less than 1.2 in 2004. Reduced child mortality rates and increased life expectancy are indicators of the success of the Korean economy and society. However, the decline in fertility rates in Korea is evidence of strains in society which will damage prosperity in the future.

Population ageing on this scale will inevitably lead to a huge increase in spending on old-age income support and health care, and will also require the development of a public family policy which supports the reconciliation of work and care commitments of workers. To successfully meet the ageing challenge, the OECD believes that three policy objectives must be targeted. First, the decline in the working-age population needs to be slowed. Second, working opportunities need to be extended. Third, affordable and sustainable pension and health care policies must be implemented. This volume looks at existing Korean family, health and pension policies from an international perspective, considers them in view of the emerging policy challenges, and outlines some of the policy options that are available to policy makers in Korea.

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